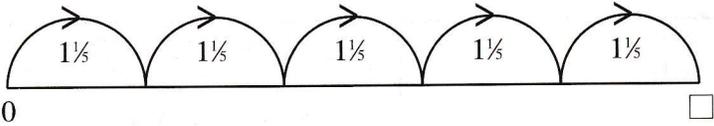
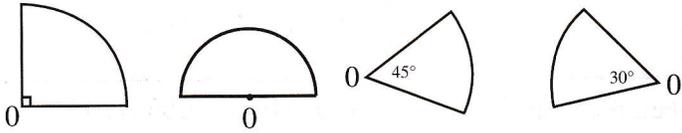
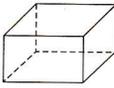
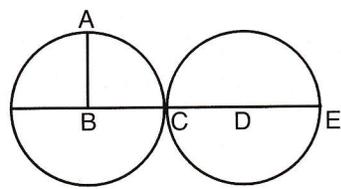


**Selective Schools
Paper 1**

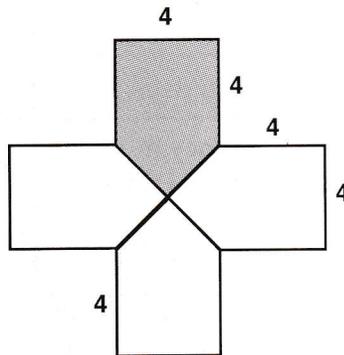
1	The average of six numbers is 4. A seventh number is added to the first six. The average of the seven numbers is 5. The seventh number is	(A) $4\frac{1}{2}$	(B) 7
		(C) 2	(D) 11
2	How many years are there in 2 centuries and 2 millenia?	(A) 220	(B) 202
		(C) 2 200	(D) 2 020
3	How many times can $2\frac{1}{2}$ be subtracted from $12\frac{1}{2}$?	(A) 5	(B) 6
		(C) 7	(D) 4
4	$1.21 - 0.9 =$	(A) 1.12	(B) 0.12
		(C) 0.31	(D) 1.31
5	What is the lowest common multiple of 3,4 and 6?	(A) 6	(B) 12
		(C) 4	(D) 24
6	Which of the given numbers has the largest value?	(A) 1.2	(B) 1.24
		(C) $1\frac{1}{4}$	(D) 1.19
7	Simplify $1\frac{1}{2} + 2\frac{3}{5}$	(A) $3\frac{3}{10}$	(B) $3\frac{3}{5}$
		(C) $3\frac{1}{2}$	(D) $3\frac{3}{10}$
8	When \$299.99 is rounded to the nearest dollar it becomes:	(A) \$299.00	(B) \$290.00
		(C) \$299.90	(D) \$300.00
9	John saw frost on the grass in the morning. What was the likely temperature?	(A) -10°C	(B) 1°C
		(C) 15°C	(D) 30°C
10	If 120 is three tenths of a number, the number is:	(A) 240	(B) 120
		(C) 400	(D) 150
11	How many whole hundreds are there in 2 967 890?	(A) 2 967	(B) 29 678
		(C) 29 670	(D) 8
12	What is the average of 3.1, 8.1, 5.1, 7.1, 3.1 and 4.1?	(A) 7.1	(B) 6.1
		(C) 5.6	(D) 5.1

<p>13 A rectangular fish tank is 50cm long, 40cm wide and 30cm deep. How many litres of water will it hold?</p>	<p>(A) 60 (B) 6 (C) 30 (D) 3</p>
<p>14 The place value of 7 in 219.07 is</p>	<p>(A) Hundreds (B) Hundredths (C) Units (D) Tenths</p>
<p>15 What number is represented by the \square?</p> 	<p>(A) 5 (B) 6 (C) $5\frac{1}{2}$ (D) None of these</p>
<p>16 A man wishes to join the police force. He weighs 100kg and must lose 200g each week in order to be accepted. What would he weigh 50 weeks from now?</p>	<p>(A) 80kg (B) 85kg (C) 90kg (D) 95kg</p>
<p>17 24kg of flour cost \$28.80. How much can be purchased for \$3.60?</p>	<p>(A) 1kg (B) $1\frac{1}{2}$kg (C) 2kg (D) 3kg</p>
<p>18 Eight million eight hundred and eight is equal to</p>	<p>(A) 8 800 008 (B) 8 080 080 (C) 8 000 808 (D) 8 008 008</p>
<p>19 Which is equal to half a quadrant of a circle? (O is the centre of the circle and sketches are not to scale.)</p> 	<p>(A) (B) (C) (D)</p>
<p>20 In the expression $27 + 36 \div 4 \times 7$, which is calculated first?</p>	<p>(A) $27 + 36$ (B) $36 \div 4$ (C) 4×7 (D) 36×7</p>
<p>21 Two painters were contracted to paint a building for \$2 265. The cost of the paint was \$465. If they took 6 days to do the work, how much per day did they each make?</p>	<p>(A) \$300 (B) \$250 (C) \$200 (D) \$150</p>

<p>22 What is the most probable missing number in the pattern: 3, 7, □, 15, 19?</p>	<p>(A) 9 (B) 10 (C) 11 (D) 13</p>
<p>23 Add the product of 28 and 3 to the sum of 29 and 11. The answer is:</p>	<p>(A) 124 (B) 104 (C) 1 204 (D) 907</p>
<p>24 26 marks out of 50 expressed as a percentage is:</p>	<p>(A) 26% (B) 52% (C) 50% (D) 51%</p>
<p>25 The number 21.87 is the same as:</p>	<p>(A) $2 + 1 + 8 + 7$ (B) $20 + 1 + 8 + \frac{7}{10}$ (C) $20 + 1 + \frac{8}{10} + \frac{7}{100}$ (D) $2 + 1 + \frac{8}{10} + \frac{7}{100}$</p>
<p>26 Which set is arranged in descending order?</p>	<p>(A) {3.99, 4.01, 4.10, 4.11} (B) {4.11, 4.01, 4.10, 3.99} (C) {4.11, 4.10, 4.01, 3.99} (D) {4.11, 4.10, 3.99, 4.01}</p>
<p>27 Of the angles 70°, 130°, 60°, 20°, 90°, 180°, 150°, which represents the acute angles?</p>	<p>(A) 70°, 60°, 90° (B) 20°, 60°, 70° (C) 70°, 130°, 180° (D) 130°, 180°, 150°</p>
<p>28 There are four shapes. Which shape does not belong to this group?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>(A)</p> </div> <div style="text-align: center;">  <p>(B)</p> </div> <div style="text-align: center;">  <p>(C)</p> </div> <div style="text-align: center;">  <p>(D)</p> </div> </div>	<p>(A) (B) (C) (D)</p>
<p>29 Which is true?</p>	<p>(A) $4\ 716 \div 1\ 000 = 47.160$ (B) $4\ 716 \times 1\ 000 = 471\ 600$ (C) $4\ 716 + 1\ 000 = 5\ 716$ (D) $4\ 716 - 1\ 000 = 4\ 616$</p>
<p>30 A bus travelled from Melbourne to Sydney in 12 hours 59 minutes. If it left Melbourne at 11:35 a.m. on Monday, when did it arrive in Sydney?</p>	<p>(A) 1:24 a.m. Monday (B) 1:24 a.m. Tuesday (C) 12:34 a.m. Tuesday (D) 12:34 a.m. Monday</p>
<p>31 At a school of 100 pupils, 30 are boys. What percentage of the pupils enrolled are girls?</p>	<p>(A) 50% (B) 60% (C) 70% (D) 30%</p>

<p>32 If the two end digits of 4186 were interchanged, the number would be made:</p>	<p>(A) smaller by 1 990 (B) larger by 1 998 (C) smaller by 1 998 (D) larger by 1 990</p>
<p>33 A 125mL carton of milk costs 20 cents. How much per litre would that be?</p>	<p>(A) \$1.60 (B) \$2.00 (C) \$2.20 (D) \$2.40</p>
<p>34 A parallelogram is a quadrilateral with pair(s) of opposite sides parallel. What is the missing number?</p>	<p>(A) 1 (B) 2 (C) 3 (D) 4</p>
<p>35 Instead of subtracting a number from 784, Michelle added and got a total of 1 093. What was the correct answer?</p>	<p>(A) 299 (B) 475 (C) 784 (D) 1 093</p>
<p>36 \$6 432.25 + \$2.71 + \$91.24 + \$241.76 + \$7.99. The answer is:</p>	<p>(A) \$6 577.95 (B) \$6 757.59 (C) \$6 775.95 (D) \$6 775.59</p>
<p>37 Which fraction will fill the gap in the series $\frac{4}{5}, \frac{39}{50}, \frac{19}{25}, \frac{74}{100}, \square, \frac{7}{10}$?</p>	<p>(A) $\frac{18}{25}$ (B) $\frac{3}{5}$ (C) $\frac{79}{100}$ (D) $\frac{17}{24}$</p>
<p>38 These are two identical circles. Points B and D are the centres of the circles. If AB is 4cm, then BE is:</p> 	<p>(A) 4cm (B) 12cm (C) 8cm (D) 6cm</p>

Questions 39 and 40 refer to this symmetrical diagram - units are in centimetres.

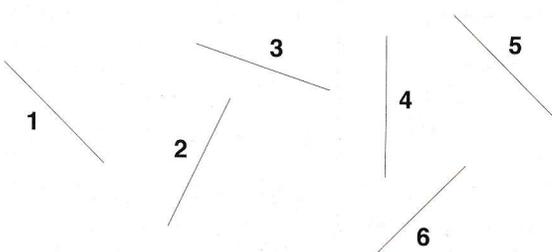
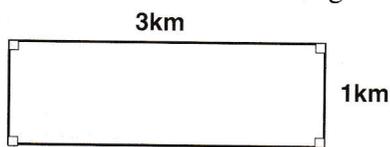
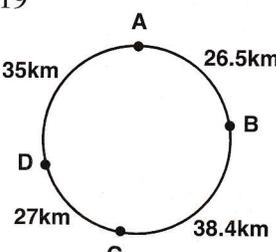


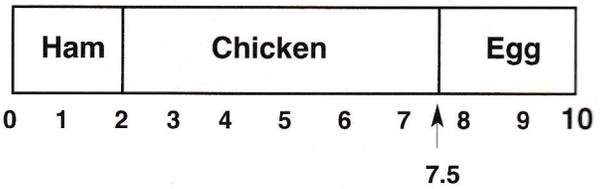
<p>39 What is the perimeter of the above shape?</p>	<p>(A) 40cm (B) 44cm (C) 48cm (D) 52cm</p>
<p>40 What is area of the shaded region?</p>	<p>(A) 16cm² (B) 20cm² (C) 24cm² (D) 32cm²</p>
<p>41 9 litres of water are to be poured into a tub using a jug which holds $\frac{1}{4}$ litre of water. How many jugfuls are necessary to pour the water completely into the tub?</p>	<p>(A) 2$\frac{1}{4}$ (B) 24 (C) 36 (D) 48</p>
<p>42 If \$5 in Australian money equals \$16 in Hong Kong money, how much Hong Kong money should I get if I change \$64 Australian for Hong Kong money?</p>	<p>(A) \$20 (B) \$90 (C) \$320 (D) \$204.80</p>
<p>43 What is the sum of the number of edges and vertices on a rectangular prism?</p>	<p>(A) 6 (B) 12 (C) 16 (D) 20</p>
<p>44 Write the third largest number you can using 4, 9, 6, 8, 0, 2.</p>	<p>(A) 986 240 (B) 986 204 (C) 986 420 (D) 986 402</p>
<p>45 An agent sells a block of land for \$120 000. She receives 5 cents in the dollar commission on the first \$40 000 and 2 cents in the dollar on the remainder. In total she receives</p>	<p>(A) \$2 000 (B) \$1 600 (C) \$3 600 (D) \$8 400</p>

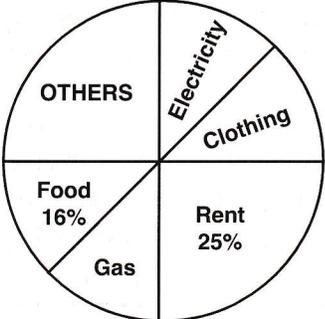
Selective Schools Paper 2

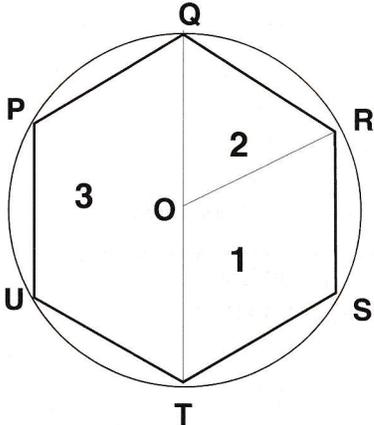
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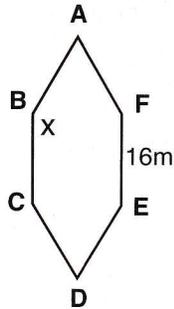
1	The sum of two prime numbers is 28 and their difference is 6. What are the two numbers?	(A) 12, 16 (B) 19, 9 (C) 11, 17 (D) 13, 15
2	Write the second largest number you can using the digits 2, 7, 1, 5, 6 once only.	(A) 76 512 (B) 76 251 (C) 76 521 (D) 76 125
3	Which number sentence is true?	(A) $2 \div 1 = \frac{1}{2}$ (B) $2 \times 1 = 1$ (C) $2 + 0 = 2$ (D) $2 - 0 = 0$
4	298 is divided by 4. Which of the given possibilities is not the correct answer?	(A) $74\frac{1}{2}$ (B) $74\frac{3}{4}$ (C) 74.5 (D) 74 remainder 2
5	Which of these expressions is equal to 279×34 ?	(A) $(279 \times 30) + (270 \times 4)$ (B) $(279 \times 30) + (200 \times 4)$ (C) $(279 \times 30) + (279 \times 40)$ (D) $(279 \times 30) + (279 \times 4)$
6	Write a decimal equivalent to 11 wholes and 49 thousandths.	(A) 11.49 (B) 11.409 (C) 11.049 (D) 1.049
7	Which gives the smallest number?	(A) $6.24 \div 3$ (B) 6.24×3 (C) $6.24 - 3$ (D) $6.24 + 3$
8	Arrange 0.6, 0.56, 0.65, 0.61 in order from the smallest to the largest.	(A) 0.56, 0.65, 0.6, 0.61 (B) 0.56, 0.6, 0.65, 0.61 (C) 0.56, 0.6, 0.61, 0.65 (D) 0.6, 0.56, 0.61, 0.65
9	A phone call to England costs \$7.50 for the first 3 minutes and \$2.50 for each minute after that. If a phone call to England costs \$40, how many minutes did the call last?	(A) 16 (B) 13 (C) 8 (D) 14
10	The temperature in Sydney was 6 Celsius degrees above average, just before the southerly hit. After it came, the temperature fell so that it was then 7 Celsius degrees below average. What was the difference in temperature in degrees Celsius?	(A) 1 (B) 6 (C) 7 (D) 13

<p>11 Company A can produce 10 computers per month while Company B can produce 291 computers over 3 years. At the end of one year, how many computers would you expect the companies to have produced?</p>	<p>(A) 97 (B) 197 (C) 207 (D) 217</p>
<p>12 $308 \div 14 = 22$. To find $308 \div 7$, I should:</p>	<p>(A) halve 14 (B) double 22 (C) halve 22 (D) triple 7</p>
<p>13 I left home with \$30 and spent $\frac{1}{4}$ of my money at the grocers and $\frac{1}{3}$ at the bakers. How much did I have left?</p>	<p>(A) \$17.50 (B) \$10 (C) \$12.50 (D) \$20</p>
<p>14 How many years are there in 20 centuries and 11 decades?</p>	<p>(A) 211 (B) 2 011 (C) 2 110 (D) 2 101</p>
<p>15 A book has 27 lines on each page. On which page will the 998th line appear?</p>	<p>(A) 35 (B) 36 (C) 37 (D) 38</p>
<p>16 Which lines are parallel?</p> 	<p>(A) 1 and 4 (B) 2 and 3 (C) 1 and 5 (D) none of these</p>
<p>17 $1, \frac{1}{8}, \frac{1}{27}, \frac{1}{64}, \frac{1}{2}, \dots$ In the above series, what is the most likely missing number?</p>	<p>(A) 125 (B) 101 (C) 83 (D) 91</p>
<p>18 What is the area of the rectangle in ha?</p> 	<p>(A) 3km^2 (B) 3ha (C) 30ha (D) 300ha</p>
<p>19</p>  <p>The sketch shows four towns A, B, C, D. The distances between the towns are shown. Ken lives at A and travels to C via B. He then returns to A via D, each working day (5 days) in a week. How far does he travel in one week?</p>	<p>(A) 126.9km (B) 1 269km (C) 634.5km (D) 649km</p>

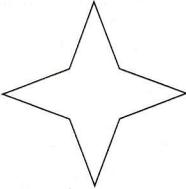
20 Carol's dad can purchase a video recorder for \$650 cash or he can pay it in 52 weekly instalments of \$15. Which way costs less and by how much?	(A) Paying by cash, \$70 (B) Instalments, \$70 (C) Paying by cash, \$130 (D) Instalments, \$130
21 Instead of dividing by 4, Paul multiplied by 4 and finished with an answer of 624. What was the correct answer?	(A) 624 (B) 2 496 (C) 39 (D) 156
22 If $\frac{3}{4}$ of Don's marbles equal 96, how many has he?	(A) 256 (B) 128 (C) 64 (D) 32
23 How many cubic centimetres are there in $1\frac{1}{4}$ litres?	(A) 1.25 (B) 12.5 (C) 125.0 (D) 1250
24 What is the perimeter of an equilateral triangle if one side is $5\frac{1}{2}$ cm?	(A) 16.5mm (B) 16.5m (C) 0.165m (D) 11cm
<p>25 A sandwich shop sells 3 different types of sandwiches: ham, chicken and egg. The fractions of each which are sold are represented on the bar graph.</p>  <p>On a particular day, 120 sandwiches were sold. The number of these that were egg was</p>	(A) 25 (B) 30 (C) 35 (D) 40
26 Which of the given possibilities has all its faces the same?	(A) cone (B) cylinder (C) square pyramid (D) cube
27 Which of the given possibilities is not a solid?	(A) sphere (B) cone (C) circle (D) cube

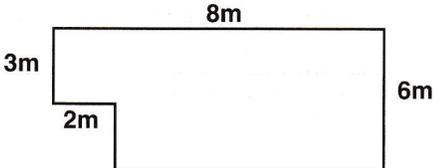
<p>Questions 28-32 refer to the pie chart given which represents the percentages of a household's monthly income spent on various items. All lines passing through the centre are straight.</p>	 <p>The pie chart is divided into six sectors by three diameters. The sectors are: Rent (25%), Food (16%), Gas, Electricity, Clothing, and OTHERS. The sectors for Gas, Electricity, and Clothing are each approximately 9% of the total, and the OTHERS sector is approximately 20%.</p>
<p>28 What percentage of the income is spent on Gas?</p>	<p>(A) 9% (B) 16% (C) 25% (D) 20%</p>
<p>29 What fraction of the income is spent on "OTHERS"?</p>	<p>(A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{1}{4}$ (D) $\frac{1}{5}$</p>
<p>30 What percentage of the income is spent on rent, gas and clothing altogether?</p>	<p>(A) 30% (B) 40% (C) 50% (D) 60%</p>
<p>31 It was found that the amount of the household's income spent on clothing was the same as the amount spent on food. If the household's income was reduced by a half of the present amount, what percentage of the income would be spent on clothing?</p>	<p>(A) 16% (B) 8% (C) 4% (D) 25%</p>
<p>32 If \$180 was spent on electricity in the month, what amount was spent on food in the same month?</p>	<p>(A) \$160 (B) \$180 (C) \$250 (D) None of these</p>
<p>33 Write the number one thousand less than one million.</p>	<p>(A) 990 900 (B) 990 000 (C) 99 900 (D) 999 000</p>
<p>34 A clock is 4 minutes fast when the correct time is 10 a.m. but it is losing 2 minutes every half hour. What time will it show when the correct time is 4 p.m. the same day?</p>	<p>(A) 4.04 p.m. (B) 4.02 p.m. (C) 3.56 p.m. (D) 3.40 p.m.</p>
<p>35 A tree 6 metres high casts a shadow 8 metres long. How high is a pole which casts a shadow 3 metres long?</p>	<p>(A) 3m (B) 6m (C) 2.5m (D) 2.25m</p>
<p>36 Julie mixes 4 parts of water and 1 part of cordial to make orange drink. How much drink does she make from 8 litres of cordial?</p>	<p>(A) 32L (B) 40L (C) 8L (D) 50L</p>

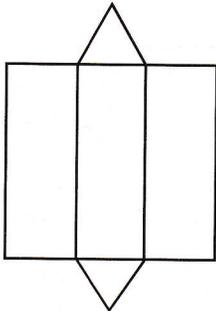
37 On average each sample of ore from a gold mine contains 6% gold. How much gold would be expected from 2 000kg of ore?	(A) 60kg (B) 600kg (C) 12kg (D) 120kg
38 At a car factory, each assembly line produces 8 cars every 10 minutes. If there are 7 assembly lines, how many cars are produced each hour?	(A) $(\frac{10}{8} \times 60) \times 7$ (B) $(8 \times \frac{10}{60}) \times 7$ (C) $(8 \times \frac{60}{10}) \times 7$ (D) $(8 \times 10) \times 7$
39 A radio station broadcasts $1\frac{1}{2}$ hours of news each day. If the station is on air for 24 hours a day, what fraction of its weekly listening time is devoted to news?	(A) $\frac{105}{240}$ (B) $\frac{1}{6}$ (C) $\frac{3}{4}$ (D) $\frac{3}{16}$
40 Jimmy has 4 times as much money as his sister. Between them, they have \$80. How much of that was Jimmy's?	(A) \$60 (B) \$64 (C) \$32 (D) \$20
41 Through how many degrees will the big hand of a clock turn between 1 p.m. and 6 p.m. on the same day?	(A) 180 (B) 150 (C) 90 (D) None of these
<p>42 The figure shows a regular hexagon PQRSTU inside a circle centre O, radius 6cm. It is made up of shapes 1, 2 and 3.</p>  <p>If the perimeter of the hexagon is 36cm, what is the perimeter of shape 3?</p>	(A) 30cm (B) 36cm (C) 24cm (D) 40cm
43 12% of a sum of money is \$240. The sum of money is	(A) \$2 000 (B) \$2 400 (C) \$200 (D) None of these

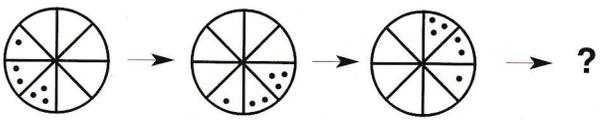
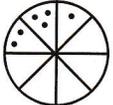
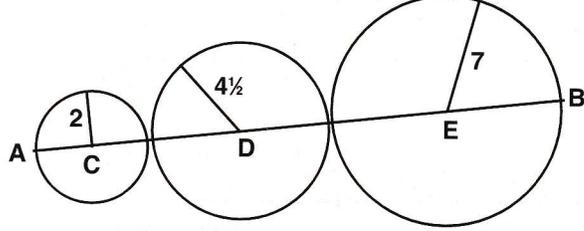
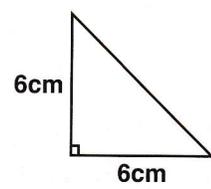
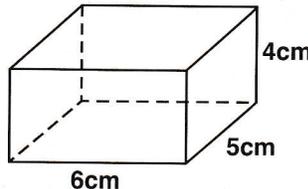
<p>Questions 44 and 45 refer to the diagram given.</p> <p>The triangle ABF and the triangle CDE are equilateral triangles. BCEF is a square. The length FE is 16m.</p>	
<p>44 The perimeter of the above figure is</p>	<p>(A) 64m (B) 96m (C) 32m (D) 128m</p>
<p>45 The angle x is equal to</p>	<p>(A) 60° (B) 90° (C) 140° (D) 150°</p>

Selective Schools Paper 3

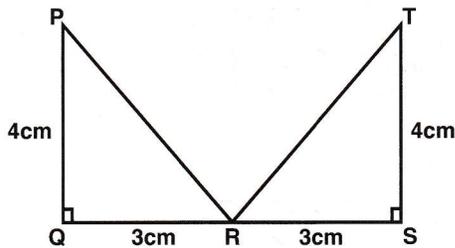
<p>1 $2^2 + 2^3$ is equal to</p>	<p>(A) 12 (B) 10 (C) 24 (D) 32</p>
<p>2 Which of the following is equal to 64.01?</p>	<p>(A) $64.01 + 1$ (B) $64.01 - 1$ (C) 64.01×0 (D) $64.01 \div 1$</p>
<p>3 How many axes of symmetry does the star have?</p> <div style="text-align: center;">  </div>	<p>(A) 1 (B) 3 (C) 4 (D) 6</p>
<p>4 Find the counting number which should replace the frame to make the number sentence true. $4 \times \square - 288 = 52$</p>	<p>(A) 120 (B) 115 (C) 98 (D) 85</p>
<p>5 Which is false?</p>	<p>(A) $6 \times 4 \div 3 = 6 \times (4 \div 3)$ (B) $4 \div 5 \times 2 = 4 \div (5 \times 2)$ (C) $4 \times 7 \times 9 = (9 \times 4) \times 7$ (D) $27 \div 3 \times 4 = (27 \div 3) \times 4$</p>
<p>6 The product 296×9 is the same as</p>	<p>(A) $2\,700 - 9$ (B) $2\,700 - 36$ (C) $2\,700 - 81$ (D) $2\,700 - 54$</p>
<p>7 Which of the following expressions is the same as $1\frac{3}{10}$?</p>	<p>(A) $3 \div 10$ (B) 13×10 (C) $13 \div \frac{1}{10}$ (D) $13 \div 10$</p>
<p>8 My age is 61. I was married 42 years ago and graduated 7 years after that. How old was I when I graduated?</p>	<p>(A) 19 (B) 24 (C) 26 (D) 32</p>
<p>9 A schoolgirl leaves home at 7:49 a.m. and arrives back home at 3:34 p.m. How long does she spend away from home?</p>	<p>(A) 7 hours 45 minutes (B) 7 hours 49 minutes (C) 4 hours 15 minutes (D) 8 hours 45 minutes</p>
<p>10 A water tank which can hold 2 400 litres is $\frac{3}{4}$ full. If $\frac{1}{4}$ of the water is used, how many litres are left?</p>	<p>(A) 2 100L (B) 1 350L (C) 1 200L (D) 1 800L</p>

<p>11 What is the temperature difference between -15°C and 15°C?</p>	<p>(A) 15°C (B) 0°C (C) 30°C (D) -15°C</p>
<p>12 Write a simple decimal expression for $\frac{1}{10} + \frac{3}{100} + 2$.</p>	<p>(A) 2.31 (B) 2.13 (C) 23.1 (D) 231</p>
<p>13 Which is the largest of the given results?</p>	<p>(A) 20% of 10 (B) 2% of 100 (C) 40% of $\frac{1}{2}$ (D) 25% of 9</p>
<p>14 Which statement is false?</p>	<p>(A) All the angles of an equilateral triangle are equal in size. (B) A diagonal of a rectangle is an axis of symmetry. (C) A square has four axes of symmetry. (D) The inside (interior) angles of a triangle total 180°.</p>
<p>15 Mary planted $\frac{1}{2}$ of her garden with beans, and $\frac{1}{3}$ with lettuce. What fraction of her garden is not planted?</p>	<p>(A) $\frac{1}{6}$ (B) $\frac{4}{9}$ (C) $\frac{1}{3}$ (D) $\frac{5}{6}$</p>
<p>16 How fast in kilometres per hour is a car travelling if it travels 20km in 15 minutes?</p>	<p>(A) 100 (B) 90 (C) 80 (D) 60</p>
<p>17 John paid \$700 for a T.V. set after he received 12.5% discount. What was the price before discount was deducted?</p>	<p>(A) \$712.50 (B) \$850 (C) \$756 (D) \$800</p>
<p>18 A girl types 3 words every 10 seconds. How many words has she typed in $3\frac{1}{2}$ minutes?</p>	<p>(A) 21 (B) 35 (C) 63 (D) 110</p>
<p>19 Find the area of the following diagram in square metres - all angles are right angles.</p> 	<p>(A) 48 (B) 42 (C) 39 (D) 18</p>

20 George made a mistake. Instead of multiplying 16.4m by 25, he only multiplied by 5. By how many metres was the answer wrong?	(A) 16.4 (B) 82 (C) 32.8 (D) 328
21 At a sale a microwave oven usually priced at \$210 is sold at a discount of 15%. What was the sale price?	(A) \$31.50 (B) \$178.50 (C) \$179.50 (D) \$177.50
22 Add $1\frac{1}{2}$ to the difference between $2\frac{3}{4}$ and $\frac{1}{4}$.	(A) 4 (B) $3\frac{3}{4}$ (C) 3 (D) $3\frac{1}{2}$
23 Milk can be bought in different quantities. Which of the given possibilities would give the best value for money?	(A) 500mL for \$1 (B) 1L for \$1.96 (C) 5L for \$9.90 (D) 3L for \$6.03
24 Which of the given fractions is equivalent to $\frac{3}{4}$?	(A) $\frac{3-1}{4-1}$ (B) $\frac{3 \times 5}{4 \times 5}$ (C) $\frac{3+2}{4+2}$ (D) $\frac{3}{4} + \frac{4}{4}$
25 Which solid is formed from the following net? 	(A) cube (B) rectangular prism (C) triangular prism (D) triangular pyramid
26 Find the numbers whose sum is 25 and product is 100.	(A) 10 and 5 (B) 25 and 4 (C) 20 and 5 (D) 10 and 15
27 Mr McDonald's weekly income of \$600 is spent in the following way: 3 parts on tax, 4 parts on food, and one part on other items. How much does he pay for food from his income?	(A) \$300 (B) \$200 (C) \$100 (D) \$500

<p>28 Complete the pattern</p> 	<p>(A)  (B) </p> <p>(C)  (D) </p>
<p>29</p>  <p>The line AB passes through the centres C, D and E of each circle. The units are in centimetres. What is the length of AB in centimetres?</p>	<p>(A) $13\frac{1}{2}$ (B) 27 (C) 23 (D) 54</p>
<p>30 What is the area of this triangle in cm^2?</p> 	<p>(A) 6 (B) 36 (C) 12 (D) 18</p>
<p>31 Two girls together donated \$3.50 to a charity. If one girl donated one and a half times as much as the other girl, how much was the larger donation?</p>	<p>(A) \$2.00 (B) \$2.10 (C) \$2.50 (D) \$2.80</p>
<p>32 What is the total surface area of this rectangular closed block in cm^2?</p> 	<p>(A) 148 (B) 74 (C) 120 (D) 60</p>
<p>33 John, Peter and Paul went out for a night in town. They bought ice creams costing \$6 in all, had a meal costing \$10.50 each, bus fares \$2 each and movie tickets cost \$6 each. If they shared expenses equally, how much did it cost each boy?</p>	<p>(A) \$24.50 (B) \$23.50 (C) \$22.50 (D) \$20.50</p>

Questions 34 and 35 refer to the diagram shown. QRS is a straight line.



34	The area of the above figure in cm^2 is	(A) 24	(B) 16
		(C) 12	(D) 14
35	Which statement is false?	(A) The triangles are right-angled triangles.	(B) The side PR is equal to the side TR.
		(C) Angle PRQ = angle TRS	(D) Angle QPR + angle TRS = 180°
<p>Questions 36 and 37 refer to the following statements:</p> <p>A certain number of pens are shared among four children, Paul, Jane, Michelle and George. Paul has 5 more than Michelle. Jane has twice as many pens as Paul. George has the same number as Michelle.</p>			
36	If Jane has 14 pens, what is the total number of pens?	(A) 111	(B) 45
		(C) 35	(D) 25
37	What percentage of the total number of pens does Paul have?	(A) 56%	(B) 4%
		(C) 28%	(D) 16%
38	A room 5 metres long, 4 metres wide and 3 metres high is to be painted. There are two windows which are 2.5 square metres each in area and there is one door which is 2 square metres in area. What is the area of the walls and the ceiling to be painted?	(A) 67m^2	(B) 69.5m^2
		(C) 87m^2	(D) 74m^2
39	It costs 36c to run a shower for an hour. How much does it cost in cents for a 4 minute shower?	(A) $6\frac{2}{3}$	(B) 2.4
		(C) 540	(D) 144
40	Add the largest and smallest numbers in the set 0.81, 0.80, 0.79, 0.8, 0.78	(A) 1.59	(B) 1.61
		(C) 1.58	(D) 1.60

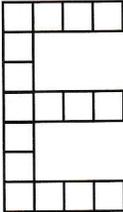
<p>41 A rectangular beam of timber is 16 metres long, 80cm wide and 50cm deep. If a piece containing 2 cubic metres is cut from the beam perpendicular to its length, what length would be left?</p>	<p>(A) 9m (B) 10m (C) 11m (D) 12m</p>
<p>42 $11 - 0.01$ is equal to</p>	<p>(A) 11.19 (B) 10.99 (C) 10.91 (D) 10.9</p>
<p>43 Find 75% of 75.</p>	<p>(A) $56\frac{1}{4}$ (B) 50 (C) 48 (D) 25</p>
<p>44 The side of a regular hexagon is 5cm long. A square has the same perimeter as the hexagon. The side of the square is</p>	<p>(A) $7\frac{1}{2}$cm (B) $6\frac{1}{4}$cm (C) $56\frac{1}{4}$cm (D) 30cm</p>
<p>45 How many squares of side 0.2cm can be cut from a square of side 4cm?</p>	<p>(A) 40 (B) 20 (C) 400 (D) 80</p>

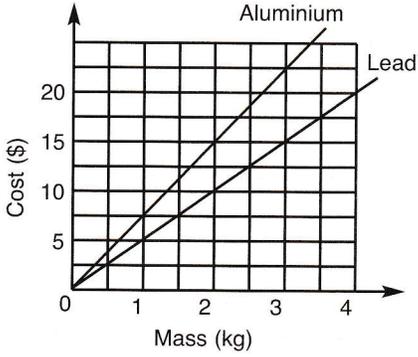
**Selective Schools
Paper 4**

Page 18

1	The answer to 0.6×7 is	(A) 0.042 (B) 0.42 (C) 4.2 (D) 42
2	Which of the given results has the smallest value?	(A) $\frac{2}{5}$ (B) 0.26 (C) 2.06 (D) $\frac{1}{4}$
3	$14 \times 2 + 2 \times 15$ is	(A) 150 (B) 60 (C) 58 (D) 48
4	In the following operations, the missing signs are $4\ 892 \square 3\ 127 = 1\ 765$ $1\ 765 \square 3\ 127 = 4\ 892$	(A) - and - (B) + and + (C) \times and \times (D) - and +
5	One half of 80 is the same as one fifth of	(A) 100 (B) 200 (C) 300 (D) 400
6	If the zero is left out, which of the given numbers will remain unchanged?	(A) 6.209 (B) 20.7 (C) 7.890 (D) 790
7	A girl went swimming at 11:35 a.m. and swam for 3 hours 45 minutes. At what time did she stop swimming?	(A) 2:15 p.m. (B) 2:45 p.m. (C) 3:15 p.m. (D) 3:20 p.m.
8	Coloured marbles are placed in a row in the order red, yellow, pink, blue. What colour would the 58th marble be?	(A) red (B) yellow (C) pink (D) blue
9	What digit should replace the \square so that the number $12\square 7$ is divisible by 9?	(A) 7 (B) 5 (C) 3 (D) 8
10	What number should replace the \square in order to make the number sentence below true? $16 \times \square = 9 \times 5 + \square$	(A) 5 (B) 3 (C) 6 (D) 16
11	In 5 years time I will be 3 times as old as my son. In 14 years time, the sum of our ages will be 62. Today the sum of our ages is	(A) 34 (B) 36 (C) 40 (D) 56
12	A car travels 6km in 5 minutes. At this speed, how far in kilometres would it travel in one hour?	(A) 30 (B) 60 (C) 72 (D) 80

<p>13 A triangle has sides of length 7cm, 14cm and 15cm. An equilateral triangle has the same perimeter. What is the length in centimetres of each side of the equilateral triangle?</p>	<p>(A) 7 (B) 14 (C) 12 (D) 15</p>
<p>14 The digits of the number 2594 are arranged in descending order and then in ascending order. What is the difference between the resulting numbers?</p>	<p>(A) 8 083 (B) 7 083 (C) 6 083 (D) 5 803</p>
<p>15 What is the quotient when 0.1 is divided by 2?</p>	<p>(A) 5 (B) 0.5 (C) 0.05 (D) 0.005</p>
<p>16 $(11 - 11) + \frac{11 \times 11}{11 \div 11} - (11 + 11) =$</p>	<p>(A) 121 (B) 242 (C) 22 (D) 99</p>
<p>17 Six more than twice the sum of a certain number and 5 equals 30. The certain number must be</p>	<p>(A) 7 (B) $10\frac{1}{2}$ (C) 9 (D) 11</p>
<p>18 On a map the scale is 1cm = 25km. How long is a road that is shown on the map as $7\frac{1}{4}$ cm?</p>	<p>(A) 180.25km (B) 182.05km (C) 182.5km (D) 181.25km</p>
<p>19 A plane flying south turned anti-clockwise through 135°. In what direction is it now flying?</p>	<p>(A) NW (B) SW (C) NE (D) SE</p>
<p>20 How many hectares are there in a block of land 0.5 km long and 0.2 km wide?</p>	<p>(A) 1ha (B) 0.01ha (C) 10ha (D) 100ha</p>
<p>21 Trees alongside a highway are spaced at a distance of 20 metres apart. What is the maximum number of trees that will lie in 1km?</p>	<p>(A) 20 (B) 50 (C) 51 (D) 100</p>
<p>22 How many cm^3 of oil are required to fill a rectangular tank 7m deep, 8m long and 10m wide?</p>	<p>(A) 560 (B) 56 000 (C) 5 600 000 (D) 560 000 000</p>
<p>23 The product of three numbers is 2 688. Two of them are 14 and 16. What is the third number?</p>	<p>(A) 5 (B) 10 (C) 15 (D) 12</p>
<p>24 In a school of 650 boys, 130 of them were unable to pass a fitness test. What percentage passed?</p>	<p>(A) 20% (B) 40% (C) 60% (D) 80%</p>

25	How many tiles each measuring 20cm x 25cm are needed to cover a surface measuring 7m x 7m?	(A) 980 (B) 98 (C) 9.8 (D) 0.98
26	Which is the larger: 3% of 100 or 100% of 3?	(A) 3% of 100 (B) 100% of 3 (C) they are equal (D) None of these
27	The circumference of John's bicycle wheel is 1.61 metres. How many metres will the bicycle travel in 25 revolutions?	(A) 20.25 (B) 25.25 (C) 35.25 (D) 40.25
28	How many times is 100 contained in 10 000 000?	(A) 5 (B) 10 000 (C) 100 000 (D) 1 000 000
29	At 7:00 a.m. the temperature was 9.6°C and at 1:00 p.m. the temperature was 24.9°C. What was the average hourly increase?	(A) 3.5°C (B) 2.55°C (C) 2.25°C (D) 2.15°C
30	Which of the given decimals is closest to $\frac{1}{10}$?	(A) 0.685 (B) 0.71 (C) 0.07 (D) 7.0
31	An empty swimming pool has a capacity of 48 000 litres. How long will it take before the pool is $\frac{3}{4}$ full if it is being filled at a rate of 900 litres per minute?	(A) 2 hours (B) 1 hour (C) 40 minutes (D) 20 minutes
Questions 32 and 33 refer to the given figure.		
32	The letter E as shown in the diagram, is formed using squares of side 1 metre. What is the perimeter of the figure in metres?	(A) 31 (B) 32 (C) 33 (D) 34
33	What is the area of this figure in square metres?	(A) 12 (B) 16 (C) 18 (D) 20

<p>34 Peter went shopping. How much did it cost him if he bought the following items? 2kg of apples at \$1.20 a kilogram 3 packets of meat at \$2.45 a packet 16 bread rolls at 15 cents each 5 litres of milk at 45 cents per litre</p>	<p>(A) \$14.40 (B) \$28.80 (C) \$56.25 (D) None of these</p>
<p>35 A boy does 7 subjects. His average mark for 6 subjects was 72 and his mark in the next subject was 100. What is his average now?</p>	<p>(A) 74 (B) 75 (C) 76 (D) 77</p>
<p>36 Mary's step is 40cm and Jim's step is 50cm. How many more steps does Mary take than Jim in walking 2 kilometres?</p>	<p>(A) 1 000 (B) 100 (C) 10 (D) 10 000</p>
<p>37 An author receives 20% in royalties on the sale of his best sellers. How much did he receive if he sold 160 000 books at \$13.80 each?</p>	<p>(A) \$4 416 (B) \$44 160 (C) \$441 600 (D) \$73 680</p>
<p>38 If $\frac{2}{3}$ of a telegraph pole is below the ground and 15 metres is above the ground, what is the total length of the pole?</p>	<p>(A) 45m (B) 20m (C) 15m (D) 30m</p>
<p>39 A girl earns \$1.60 per hour as a babysitter. How many complete hours would she have to work in order to earn \$20?</p>	<p>(A) 11 (B) 12 (C) 13 (D) 14</p>
<p>40 If 40% of a number is 64, then 70% of the number is</p>	<p>(A) 112 (B) 94 (C) 36.6 (D) 448</p>
<p>Questions 41 to 43 refer to the given graph:</p> <p style="text-align: center;">Cost of Aluminium and Lead</p> 	
<p>41 The cost of 2kg of lead and 2kg of aluminium is:</p>	<p>(A) \$15 (B) \$20 (C) \$25 (D) \$30</p>
<p>42 How many kilograms of aluminium can be bought with \$15 000?</p>	<p>(A) 200 (B) 2 000 (C) 20 000 (D) 200 000</p>

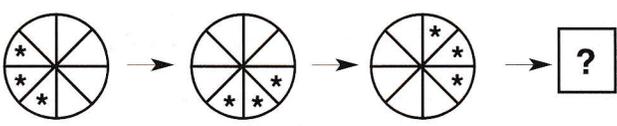
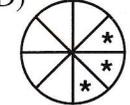
43 A company purchased \$100 000 worth of aluminium and lead. If the mass of the aluminium was 10 000kg, how many kilograms of lead did the company purchase?	(A) 10 000kg (B) 11 000kg (C) 5 000kg (D) 13 000kg
44 A large container is 8 metres long, 3 metres high and 5 metres wide. How many boxes 2 metres long by 50cm wide and 20cm high could be packed into the large container?	(A) 1 200 (B) 120 (C) 600 (D) 300
45 What is the most likely number to complete the pattern 1, 11, 3, 9, 5, 7, 7, □?	(A) 6 (B) 8 (C) 5 (D) 9

Selective Schools Paper 5

1	7 - 3.48 is equal to	(A) 10.48	(B) 3.51	(C) 4.62	(D) 3.52
2	6 x 4.37 is equal to	(A) 0.262	(B) 27.22	(C) 2.62	(D) 26.22
Questions 3-4: A rectangle is 250cm long and 50cm wide.					
3	The perimeter in metres is	(A) 600	(B) 300	(C) 60	(D) 6
4	The area in square metres is	(A) 12 500	(B) 1 250	(C) 1.25	(D) 12.5
5	The difference between one million dollars and one million cents is	(A) \$999 990	(B) \$999 900	(C) \$999 000	(D) \$990 000
6	The square root of the sum of the squares of 6 and 8 is	(A) 14	(B) 10	(C) 100	(D) $\sqrt{28}$
7	A closed cube has a volume of 27cm^3 . The total surface area in cm^2 is	(A) 9	(B) 54	(C) 81	(D) 486
8	$0.32 \div 4$ is equal to	(A) 0.08	(B) 0.8	(C) 8	(D) none of these
Questions 9-10: The length of the circumference of a circle can be taken as three and one seventh times the length of the diameter.					
9	A wheel of a cycle has a diameter of 70cm. The length, in cm, of the circumference of the wheel is	(A) 220	(B) 2.2	(C) 22	(D) 4.4
10	The number of revolutions of this wheel in cycling a distance of 110m is:	(A) 500	(B) 5 000	(C) 50	(D) 5
11	The average of the numbers 2, \square , 7, 6 is 4.5. The value of \square is	(A) 10.5	(B) 19.5	(C) 4	(D) 3

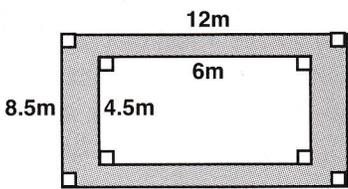
12	A recipe says that 10kg of fruit need 8kg of sugar. The number of kilograms of fruit than can be made with 6kg of sugar is	(A) $13\frac{1}{2}$ (C) $7\frac{1}{2}$	(B) $4\frac{1}{2}$ (D) $6\frac{1}{2}$
13	As a percentage, $\frac{3}{100} + \frac{1}{10}$ is	(A) 36 (C) 3.6	(B) 63 (D) 0.63
Questions 14-15: An empty room is 7m long, 5m wide and 3m high.			
14	Ignoring doors and windows, the area of the four walls in m^2 is	(A) 105 (C) 36	(B) 72 (D) 142
15	If $1m^3 = 1000$ litres, then the capacity of the room in litres is	(A) 105 (C) 105 000	(B) 15 000 (D) 72 000
16	If $2\frac{1}{2}$ litres of juice cost \$1.80, then $1\frac{1}{2}$ litres cost	(A) 96c (C) \$1.26	(B) \$1.08 (D) \$1.20
17	Which of the given values is the best approximation to $\frac{75.32 \times 138.7}{12.62 \times 81.46}$?	(A) 0.1 (C) 10	(B) 1 (D) 0.001
18	4 586 persons are each given a $\frac{1}{2}$ mL dose of vaccine. The number of litres of vaccine used was	(A) 4.586 (C) 2.293	(B) 22.93 (D) 45.86
19	The number represented by four thousand seven hundred and nine units is	(A) 479 (C) 4 709	(B) 4 079 (D) 40 709
20	A set of 5 measurements has an average of 13, whilst another set of 7 measurements has an average of 10. The average of the 12 measurements is	(A) 23 (C) 11.25	(B) 11.5 (D) 4.02
21	How many multiples of 3 are there less than 40 which are also divisible by 4?	(A) 13 (C) 10	(B) 6 (D) 3
22	The operation P between two numbers means to find four times the sum of these numbers. The value of $5P6$ is	(A) 11 (C) 44	(B) 48 (D) 15

<p>23 A pie chart is drawn to represent 3 items. The angles of two of the sectors are 107° and 208°. The third sector as a percentage of the whole pie chart is</p>	<p>(A) 25 (B) 87.5 (C) 12.5 (D) 62.5</p>
<p>24 It takes 50 minutes to drive to town. When should I leave if I have to be in town at 9.35 a.m.?</p>	<p>(A) 8:45 a.m. (B) 9:05 a.m. (C) 8:55 a.m. (D) 8:25 a.m.</p>
<p>25 $28 + 0.1 \times 40 =$</p>	<p>(A) 68 (B) 32 (C) 1 124 (D) 28.4</p>
<p>26 The number halfway between 0.4 and 1.68 is</p>	<p>(A) 0.68 (B) 1.04 (C) 1.28 (D) 1.08</p>
<p>27 A quadrilateral with exactly four lines of symmetry must be a</p>	<p>(A) rectangle (B) parallelogram (C) square (D) rhombus</p>
<p>28 A scout walks in a direction of NE. In what direction must he walk in order to return to his starting point?</p>	<p>(A) SE (B) NW (C) SW (D) NE</p>
<p>29 Write 300 as a fraction of 60 000.</p>	<p>(A) $\frac{1}{20}$ (B) $\frac{1}{40}$ (C) $\frac{1}{100}$ (D) $\frac{1}{200}$</p>
<p>30 An olive tree was planted 4 years and 5 months before the olives were picked in March 1991. The tree was planted in:</p>	<p>(A) November 1986 (B) November 1987 (C) October 1986 (D) October 1987</p>
<p>31 If the length of a rectangle is doubled and the breadth tripled, then the area of the rectangle has been multiplied by:</p>	<p>(A) 2 (B) 3 (C) $2\frac{1}{2}$ (D) 6</p>
<p>32 A pill bottle containing 16 pills has a total mass of 140g. When the bottle contains 10 pills its total mass is 125g. The mass of the bottle in grams is:</p>	<p>(A) 92 (B) 100 (C) 15 (D) 110</p>
<p>33 20% of \$8 is:</p>	<p>(A) \$16 (B) 16c (C) \$160 (D) \$1.60</p>
<p>34 The group in which the numbers are arranged in increasing size is:</p>	<p>(A) $\frac{3}{4}$, 0.76, 74% (B) 74%, $\frac{3}{4}$, 0.76 (C) 0.76, $\frac{3}{4}$, 74% (D) 0.76, 74%, $\frac{3}{4}$</p>

<p>35 The sum of all the even divisors of 32 (including 32 itself) is:</p>	<p>(A) 60 (B) 63 (C) 54 (D) 62</p>									
<p>36 The value of $100 - 99 + 98 - 97 + \dots - 3 + 2 - 1$ is:</p>	<p>(A) 50 (B) 49 (C) 51 (D) 99</p>									
<p>37 The square shown is a magic square. This means that the sum of the numbers in any row, column or diagonal must be the same. The value of X is:</p> <table border="1" style="margin: 10px auto;"> <tbody> <tr> <td></td> <td></td> <td>12</td> </tr> <tr> <td>9</td> <td></td> <td>13</td> </tr> <tr> <td></td> <td>X</td> <td>8</td> </tr> </tbody> </table>			12	9		13		X	8	<p>(A) 14 (B) 7 (C) 11 (D) 15</p>
		12								
9		13								
	X	8								
<p>38 Neil, Jane and Mary each have \$30. How much money should Jane give to Neil and Mary so that Neil has \$5 more than Jane and Mary has \$1 less than Neil?</p>	<p>(A) \$5 to Neil, \$1 to Mary (B) \$5 to Neil, \$4 to Mary (C) \$3.50 to Neil, \$2.50 to Mary (D) \$2 to Neil, \$1 to Mary</p>									
<p>39 Write the number which is one hundred less than one million.</p>	<p>(A) 990 000 (B) 99 900 (C) 999 900 (D) 990 900</p>									
<p>40 20 marks out of 25 is what as a percentage?</p>	<p>(A) 25% (B) 40% (C) 80% (D) 60%</p>									
<p>41 Complete this pattern</p> 	<p>(A)  (B)  (C)  (D) </p>									
<p>42 Which two numbers have their sum as 11 and product as 24?</p>	<p>(A) 4 and 10 (B) 4 and 6 (C) 2 and 9 (D) 3 and 8</p>									
<p>43 Which one of the given possibilities does not equal 0.4?</p>	<p>(A) $\frac{2}{5}$ (B) 40% (C) $\frac{4}{10}$ (D) 4%</p>									

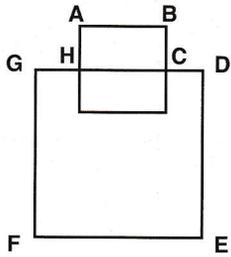
<p>44 A ten dollar note is approximately 15.5cm long. About how far will 1 000 ten dollar notes reach if laid end to end?</p>	<p>(A) 15.5m (B) 15.5km (C) 1.55km (D) 155m</p>
<p>45 An urn is half full of water. If 20 litres of water is added to it, the urn is then three quarters full. How many litres does the urn hold when full?</p>	<p>(A) 5 (B) 40 (C) 100 (D) 80</p>

Selective Schools Paper 6

1	4% of 1 500 equals	(A) 60 (B) 600 (C) 6 (D) 375
2	Which of the given possibilities is the closest approximation to 3.97×2.134 ?	(A) 80 (B) 8 (C) 0.08 (D) 0.8
3	The distance between two buildings is 350m. This distance is represented on a map by a length of 7mm. The scale used on the map is	(A) 1 : 50 (B) 1 : 500 (C) 1 : 5 000 (D) 1 : 50 000
4	A car is travelling at a speed of 78km/h. The distance it covers in 20 minutes is	(A) 1 560km (B) 19.5km (C) 13.6km (D) 26km
5	In the following diagram the shaded area in m^2 is 	(A) 129 (B) 20 (C) 10 (D) 75
6	The value of 0.03×3 is	(A) 0.06 (B) 0.09 (C) 0.9 (D) 0.6
7	Four identical discs are marked with the digits 1,3, 5, 7 respectively. The four discs are placed in a row so that the digits form a number. How many different numbers are possible, each number starting with 5?	(A) 24 (B) 12 (C) 6 (D) 16
8	The value of $0.2 \div 5$ is	(A) 0.04 (B) 0.4 (C) 4 (D) 40
9	93cm of rain fell in the period January to November inclusive (i.e. including January and November). The average monthly rainfall for the whole year was 9cm. How many cm of rain fell in December?	(A) 84 (B) 201 (C) 6 (D) 15
10	As a percentage $\frac{17}{25}$ is	(A) 68 (B) 34 (C) 51 (D) 85

Questions 11-12: The lengths of the sides of a triangle are 4.53cm, 5.71cm and 6.2cm.	
11 The perimeter of the triangle in centimetres is	(A) 16.26 (B) 15.44 (C) 16.44 (D) 15.144
12 The difference in length between the shortest and the longest sides, in millimetres, is	(A) 1.67 (B) 16.7 (C) 0.167 (D) 17.7
13 It costs \$135 to hire a bus. In addition, there is a charge of 90c per kilometre travelled. On a journey of 50km, there are 40 passengers. If the total cost of the trip is shared equally by the passengers, then the cost per passenger is	(A) \$12.80 (B) \$14.63 (C) \$1.25 (D) \$4.50
14 Brass is made up of copper and zinc so that for each 13 parts of copper there are 7 parts of zinc. How many kilograms of zinc would there be in 1 tonne of brass?	(A) 650 (B) 35 (C) 350 (D) 3 580
15 In the number 632, the 6 has a value that is	(A) three times the value of the 2 (B) twice the value of the 3 (C) thirty times the value of the 2 (D) twenty times the value of the 3
16 The decimal numeral represented by $4 + \frac{3}{10} + \frac{7}{100}$ is	(A) 4.37 (B) 4.73 (C) 43.7 (D) 437
17 The number of grams in 2.3kg is	(A) 23 (B) 2 300 (C) 230 (D) 23 000
18 If 90% of a certain number is 360, the number is	(A) 400 (B) 40 (C) 4 000 (D) 324
19 Sheets of paper cost $3\frac{1}{2}$ cents each. The number of sheets which can be bought for \$1.54 is	(A) 440 (B) 539 (C) 48 (D) 44
20 An article costing 24 cents is sold for 30 cents. The gain as a fraction of the selling price is	(A) $\frac{1}{5}$ (B) $\frac{1}{4}$ (C) $\frac{4}{5}$ (D) $\frac{3}{4}$

21	Jose won \$1 000 000 in a lottery. He decided that he would spend \$1 a second for the next 10 years. But he was disappointed. All his money was gone after approximately	(A) 1 day (B) 10 days (C) 10 weeks (D) 1 year
22	A rectangular tank 3m x 4m x 5m is full of water. If 1 litre of water weighs 1kg, what is the weight of the water in tonnes?	(A) 600 (B) 16 (C) 6 (D) 60
23	The area in ha of a rectangular farm 2km long and 1 600m wide is	(A) 320 (B) 3 200 (C) 32 (D) 32 000
24	$\frac{1}{8}$ of 1 litre in millilitres is	(A) 12.5 (B) 125 (C) 1 250 (D) 1.25
25	In a class of 48 students, 36 are girls. The fraction of boys in the class is	(A) $\frac{3}{4}$ (B) $\frac{1}{4}$ (C) $\frac{1}{3}$ (D) $\frac{2}{3}$
26	\$36 is shared between A, B and C so that A received 4 parts, B received 3 parts and C received 2 parts. What did C receive?	(A) \$12 (B) \$10 (C) \$8 (D) \$6
27	A car uses 500mL of petrol to travel 5.5km. How many litres of petrol would the car use to travel 218km? Approximately	(A) 19litres (B) 20litres (C) 21litres (D) none of these
28	Which of the following quadrilaterals has exactl two axes of symmetry.	(A) trapezium (B) parallelogram (C) square (D) rhombus
29	Orange juice is sold in 3 litre casks. If paper cups hold 160mL, how many full cups of orange juice can you get from a cask?	(A) 190 (B) 19 (C) 20 (D) 18
30	There are six more squares than triangles on a page. If there are 42 such diagrams altogether, how many squares are there?	(A) 18 (B) 24 (C) 36 (D) 30

<p>31 In the sketch, half the smaller square overlaps the larger square, whose side is 9cm. If the area of the figure ABCDEFGH is 89cm^2, then the side of the smaller square in centimetres is</p> 	<p>(A) 4 (B) 3 (C) 2 (D) 5</p>
<p>32 If you were to write down all the counting numbers from 1 to 120, how many times would the digit '7' occur?</p>	<p>(A) 12 (B) 13 (C) 21 (D) 22</p>
<p>33 The angle between the hands of a clock at half past two is</p>	<p>(A) 105° (B) 120° (C) 90° (D) 100°</p>
<p>34 A number is divided by each of the numbers 6, 8, 9, 24. In each case it leaves a remainder of 1. The smallest such number would be</p>	<p>(A) 10 369 (B) 49 (C) 145 (D) 73</p>
<p>35 A rectangle measures 16cm x 9cm. The side of a square of equal area to the rectangle is</p>	<p>(A) 10 cm (B) 12 cm (C) 14 cm (D) $12\frac{1}{2}\text{cm}$</p>
<p>36 $3 + 3.3$ equals:</p>	<p>(A) 3.6 (B) 6.3 (C) 33.3 (D) 3.33</p>
<p>37 $\frac{3 \times 4 \times 20}{2 \times 5 \times 8 \times 12}$ is equal to:</p>	<p>(A) 2 (B) $\frac{1}{2}$ (C) 4 (D) $\frac{1}{4}$</p>
<p>38 Today, after assembly, classes did not start until 9:12 a.m. How many hours and minutes were there until the final siren at 3:10 p.m.?</p>	<p>(A) 5 hours 58 minutes (B) 6 hours 58 minutes (C) 6 hours 2 minutes (D) 12 hours 22 minutes</p>
<p>39 Write the number which is one hundred thousand one hundred less than two million.</p>	<p>(A) 1 899 900 (B) 1 899 090 (C) 1 890 000 (D) 1 899 000</p>
<p>40 Which is the smallest of the given possibilities?</p>	<p>(A) 3.3 (B) 3.03 (C) 3.30 (D) 3.33</p>

<p>41 The total fare of 2 adults and 3 children is \$16. If the children's fare is \$1.80 each, how much is each adult fare?</p>	<p>(A) \$10.60 (B) \$5.40 (C) \$6.20 (D) \$5.30</p>
<p>42 Arthur pays for an article with a \$2 coin and receives three different silver coins as change. What is the greatest amount of money the article could have cost?</p>	<p>(A) 35c (B) \$1.92 (C) \$1.85 (D) \$1.65</p>
<p>43 Which of these numbers is prime?</p>	<p>(A) 57 (B) 49 (C) 51 (D) 53</p>
<p>44 $1 - \frac{79}{1000}$ is:</p>	<p>(A) 0.3 (B) 0.97 (C) 0.93 (D) 0.993</p>
<p>45 $\begin{array}{r} 2\ U\ 3 \\ \underline{3\ 4\ x} \\ 1\ 0\ V\ 2 \\ \underline{7\ W\ 9} \\ 8\ 9\ 4\ 2 \end{array}$</p> <p>In the multiplication shown, the digits U, V, W are respectively:</p>	<p>(A) 8, 6, 5 (B) 6, 5, 9 (C) 6, 5, 8 (D) none of these</p>

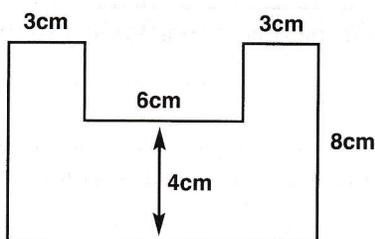
Selective Schools Paper 7

1 45cm as a percentage of 1m is	(A) 0.045% (B) 0.45% (C) 4.5% (D) 45%
2 \$165 is divided among 3 girls so that for each \$2 obtained by the first girl, the second girl gets \$3 and the third girl gets \$6. The first girl's share of the \$165 is	(A) \$30 (B) \$45 (C) \$90 (D) \$15
3 $430.2 \div 9$ is	(A) 47.8 (B) 4.78 (C) 478 (D) 0.478

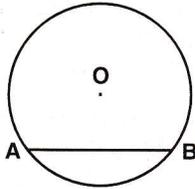
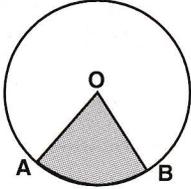
Questions 4-5: On a map, 1mm represents a distance of 20km.

4 The distance in km represented by a length of 2.25cm is	(A) 4.5 (B) 45 (C) 450 (D) 4 500
5 What length in centimetres on the map would represent a distance of 700km?	(A) 35 (B) 3.5 (C) 350 (D) 0.35
6 0.7 of \$23 is	(A) \$1.61 (B) \$16.10 (C) \$161 (D) \$30

Questions 7-8 refer to the diagram shown.
The given figure is symmetrical and all angles are right angles.



7 The perimeter of the figure in centimetres is	(A) 48 (B) 40 (C) 36 (D) 24
8 The area of the given figure in cm^2 is	(A) 96 (B) 72 (C) 78 (D) none of these

9	 <p>O is the centre of the circle.</p> <p>In the diagram, the interval AB is called a</p>	<p>(A) radius (B) diameter (C) chord (D) arc</p>
10	 <p>In the figure, O is the centre of the circle. the shaded area is a</p>	<p>(A) segment (B) semicircle (C) sector (D) quadrant</p>
11	An isosceles triangle is a triangle with	<p>(A) no sides equal (B) 2 sides equal (C) 3 sides equal (D) no angles equal</p>
12	The cost for a motor trip of 73km was \$14.60. What should be the cost at the same rate for a journey of 65km?	<p>(A) \$13.00 (B) \$130 (C) \$116.80 (D) \$14.15</p>
Questions 13-14: An empty room is 15m long, 12m wide and 10m high		
13	The area of the 4 walls and ceiling in metres ² is	<p>(A) 720 (B) 900 (C) 540 (D) 1 800</p>
14	The volume in metres ³ of air it contains is	<p>(A) 1 800 (B) 37 (C) 330 (D) 270</p>
15	In figures, one million, twenty four thousand and thirty is	<p>(A) 1 024 003 (B) 1 024 030 (C) 1 240 030 (D) 124 300</p>
16	A satellite orbits the earth once every 90 minutes. How many complete revolutions does it make in 24 hours?	<p>(A) 16 (B) 36 (C) 960 (D) 3</p>
17	The next term in the sequence $\frac{1}{2}$, 1, $\frac{1}{8}$, 1, $\frac{25}{32}$, $\frac{1}{16}$, \square is probably	<p>(A) 1 (B) $\frac{1}{16}$ (C) $\frac{49}{128}$ (D) none of these</p>

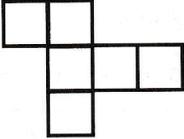
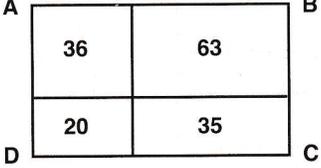
18	If $0.0003 \times \square = 30$, then \square is	(A) 10	(B) 100
		(C) 1 000	(D) 100 000
19	For what value of \square is $57 \times 86 = 57 \times 80 + 57 \times \square$	(A) 166	(B) 60
		(C) 16	(D) 6
20	How many pieces of string 34cm long can be cut from a piece of string which is 3 metres long?	(A) 10	(B) 9
		(C) 8	(D) 7

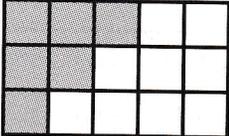
Questions 21-23 refer to the following table.

The marks in a test out of 5 are shown in the table below:

MARKS	Number of students who received those marks
0	2
1	3
2	6
3	5
4	3
5	1

21	The number of students who got 80% in the test was	(A) 6	(B) 5
		(C) 3	(D) 2
22	The number of students who got more than 2 marks is	(A) 6	(B) 5
		(C) 9	(D) 20
23	What percentage of students got more than 1 and less than 5?	(A) 90	(B) 80
		(C) 60	(D) 70
24	The length of a rectangle is 3m less than its breadth. If its area is 40m^2 then its perimeter must be	(A) 43m	(B) 64m
		(C) 26m	(D) 25m
25	What is $8 \times 8 \times 8$ rounded off to the nearest hundred?	(A) 100	(B) 510
		(C) 400	(D) 500
26	Our grandfather died on his 80th birthday. About how many days did he live?	(A) 280 000	(B) 28 000
		(C) 290 000	(D) 29 000

27 A multi-storied office building has rectangular floors 25m long and 16m wide. How many floors does it have if there are 5 600m ² of floor space?	(A) 10 (B) 14 (C) 9 (D) 7
28 There is enough food in a pig pen to feed 14 pigs for 16 days. For how many days should this amount of food feed 8 pigs?	(A) 28 (B) 16 (C) 26 (D) $\frac{64}{7}$
29 There are 12 girls and 8 boys in our class. If the girls averaged 64 in a test whilst the whole class averaged 60 in this test, what did the boys average?	(A) 62 (B) 48 (C) 56 (D) 54
30 The diagram shows the net of a cube of side 10cm. What is the sum of the lengths of the edges of the cube? 	(A) 140cm (B) 190cm (C) 120cm (D) 600cm
31 In the sketch, not drawn to scale, the rectangle ABCD is divided into four smaller rectangles whose areas in cm ² are shown.  If the lengths in centimetres of the sides of the rectangles are whole numbers, what is the perimeter of the rectangle ABCD?	(A) 50cm (B) 25cm (C) 28cm (D) 72cm
32 Each pair of adjoining spokes of a wheel meet at an angle of 24°. How many spokes are there?	(A) 12 (B) 15 (C) 7.5 (D) 30
33 A 1m square sheet of cardboard is cut into the maximum number of squares of side 1mm. If these squares could be laid side by side, how far would they stretch in metres?	(A) 100 (B) 1 000 000 (C) 1 000 (D) 10 000
34 School goes from 9 a.m. to 3 p.m. There is a morning break of 20 minutes and lunch takes 1 hour. The total time for classes each day is	(A) 4h 40min (B) 5h 20min (C) 4h 20min (D) 4h 50min
35 Find the sum of all the two digit numbers greater than 10 such that the tens digit is one less than the units digit.	(A) 476 (B) 414 (C) 486 (D) 404

<p>36 The value of $(10 - 7) \times (10 + 7) + (16 - 4) \times (16 + 4)$ is</p>	<p>(A) 291 (B) 1 740 (C) 1 260 (D) 788</p>
<p>37 In the sketch below, the little squares are all the same size and the area of the whole rectangle is 1 square unit.</p>  <p>The area of the shaded part in square units is</p>	<p>(A) $\frac{2}{5}$ (B) $\frac{1}{3}$ (C) $\frac{3}{5}$ (D) $\frac{3}{8}$</p>
<p>38 Which of the given expressions is equal to $3 \times (5 + 7)$?</p>	<p>(A) $5 \times 3 + 5 \times 7$ (B) $7 \times 3 + 7 \times 5$ (C) $3 \times 5 + 3 \times 7$ (D) $15 + 7$</p>
<p>39 The number 313 is exactly divisible by</p>	<p>(A) 3 (B) 5 (C) 11 (D) none of these</p>
<p>40 When the number 168 is rotated half a turn, it becomes 891. Which of the following numbers when rotated half a turn is decreased by 12?</p>	<p>(A) 81 (B) 69 (C) 16 (D) 98</p>
<p>41 A rectangular slab measuring 6m x 4m is 100mm thick. What is the volume of the slab in m^3?</p>	<p>(A) 24 (B) 2.4 (C) 0.24 (D) 240</p>
<p>42 4.86×0.79 is approximately equal to</p>	<p>(A) 4 (B) 0.4 (C) 0.04 (D) 400</p>
<p>43 32% expressed as a fraction is</p>	<p>(A) $\frac{1}{3}$ (B) $\frac{6}{25}$ (C) $\frac{8}{25}$ (D) $\frac{5}{32}$</p>
<p>44 What percentage of whole numbers from 2 to 21, both included, are exact multiples of 3?</p>	<p>(A) $1\frac{1}{3}\%$ (B) 35% (C) 42% (D) 50%</p>
<p>45 A rectangle has a perimeter of 32cm and an area of $28cm^2$. What are its dimensions in centimetres?</p>	<p>(A) 4 and 7 (B) 1 and 28 (C) 2 and 14 (D) 56 and $\frac{1}{2}$</p>

Selective Schools Paper 8

1	In the number 474, the difference in the value of the 4's is	(A) 0	(B) 99	(C) 396	(D) 360																																				
2	Of the given results, the best approximation to $58.9 \times \frac{63.4}{6.47} \times \frac{0.41}{0.38}$ is	(A) 0.6	(B) 6	(C) 60	(D) 600																																				
3	A student obtains a mark of 29 out of 40. As a percentage, this is	(A) $62\frac{1}{2}\%$	(B) 75%	(C) $29\frac{1}{40}\%$	(D) $72\frac{1}{2}\%$																																				
4	A cooking book says that to roast a joint, the cook should allow 40 minutes for each kilogram, and then allow an additional half-hour. Following these instructions, the time required to roast a joint weighing $2\frac{1}{2}$ kg is	(A) 2h	(B) 2h 10min.	(C) 2h 20min.	(D) 1h 30min.																																				
<p>Questions 5 - 8: This table shows how to use the operation \emptyset on the numbers 1, 2, 3, 4, 5. Use this table to answer the following questions.</p>		<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="padding: 2px;">\emptyset</th> <th style="padding: 2px;">1</th> <th style="padding: 2px;">2</th> <th style="padding: 2px;">3</th> <th style="padding: 2px;">4</th> <th style="padding: 2px;">5</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">1</td> <td style="padding: 2px;">1</td> <td style="padding: 2px;">2</td> <td style="padding: 2px;">3</td> <td style="padding: 2px;">4</td> <td style="padding: 2px;">5</td> </tr> <tr> <td style="padding: 2px;">2</td> <td style="padding: 2px;">2</td> <td style="padding: 2px;">4</td> <td style="padding: 2px;">0</td> <td style="padding: 2px;">2</td> <td style="padding: 2px;">4</td> </tr> <tr> <td style="padding: 2px;">3</td> <td style="padding: 2px;">3</td> <td style="padding: 2px;">0</td> <td style="padding: 2px;">3</td> <td style="padding: 2px;">0</td> <td style="padding: 2px;">3</td> </tr> <tr> <td style="padding: 2px;">4</td> <td style="padding: 2px;">4</td> <td style="padding: 2px;">2</td> <td style="padding: 2px;">0</td> <td style="padding: 2px;">4</td> <td style="padding: 2px;">2</td> </tr> <tr> <td style="padding: 2px;">5</td> <td style="padding: 2px;">5</td> <td style="padding: 2px;">4</td> <td style="padding: 2px;">3</td> <td style="padding: 2px;">2</td> <td style="padding: 2px;">1</td> </tr> </tbody> </table>				\emptyset	1	2	3	4	5	1	1	2	3	4	5	2	2	4	0	2	4	3	3	0	3	0	3	4	4	2	0	4	2	5	5	4	3	2	1
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5	5	4	3	2	1																																				
5	$5 \emptyset 2$ is equal to	(A) 1	(B) 2	(C) 3	(D) 4																																				
6	$(5 \emptyset 2) \emptyset 3$ is equal to	(A) 0	(B) 1	(C) 2	(D) 3																																				
7	The value of \square so that $2 = \square \emptyset 3$ is	(A) 2	(B) 3	(C) 4	(D) none of these																																				
8	The value of the number \square so that $\square \emptyset \square = 1$ is	(A) 1 only	(B) 1 and 2	(C) 1, 2 and 3	(D) 1 and 5																																				
9	If you add the number of axes of symmetry of a regular hexagon to the number of axes of symmetry of an isosceles triangle, the result is	(A) 7	(B) 5	(C) 9	(D) 4																																				

<p>10 A rectangular paddock is of area $7\frac{1}{2}$ha. One side is 600 m long. Then the other side in metres is</p>	<p>(A) 125 (B) $12\frac{1}{2}$ (C) 4 500 (D) $\frac{1}{50}$</p>
<p>11 An obtuse angle is an angle which is</p>	<p>(A) greater than 90°. (B) greater than 90° but less than 360°. (C) less than 90°. (D) greater than 90° but less than 180°.</p>
<p>12 Which is the best description of a square? A square is a quadrilateral with</p>	<p>(A) 4 equal sides. (B) 4 right angles. (C) the opposite sides parallel. (D) 4 equal sides and 4 right angles.</p>
<p>13 A pile of 200 sheets of paper is 4.8cm thick. In mm, the thickness of each sheet is</p>	<p>(A) 24 (B) 2.4 (C) 0.24 (D) 0.024</p>
<p>14 A rectangular prism is 9cm long, 8cm wide and 3cm high. A cube has the same volume as the prism. The side of the cube in centimetres is</p>	<p>(A) 4 (B) 5 (C) 6 (D) 8</p>
<p>15 $3 \times 0.02 \times 4$ is equal to</p>	<p>(A) 0.24 (B) 0.024 (C) 0.0024 (D) 0.009</p>
<p>16 357 619 rounded off to the nearest thousand, is</p>	<p>(A) 357 000 (B) 358 000 (C) 357 600 (D) 357 700</p>
<p>17 Which expression is not equal to 36?</p>	<p>(A) $(10 - 1) \times 4$ (B) $80 \div 2 - 4$ (C) $3 \times 8 + 2 \times 6$ (D) $8 + 4 \times 3$</p>
<p>18 How many square centimetres are in 1 square metre?</p>	<p>(A) 100 (B) 1 000 (C) 10 000 (D) 100 000</p>
<p>19 A truck travels 7km for each litre of fuel. If fuel costs 89c per litre, how much in fuel would a journey of 203km cost? Approximately</p>	<p>(A) \$24 (B) \$26 (C) \$28 (D) \$30</p>

20 If $\square = 3$ and $\triangle = 7$ find the value of $\square + \triangle \times (\triangle - \square)$	(A) 40 (B) 49 (C) 67 (D) 31
21 When a wheel revolves once it is said to turn through 360° . A wheel revolves (turns) through 1620° . How many complete revolutions does it make?	(A) 4.5 (B) 5 (C) 4 (D) 6
22 I bought 9 apples at 23c each and 7 oranges at 19c each. How much change would I have from \$10?	(A) \$7.60 (B) \$7.40 (C) \$6.60 (D) \$6.40
23 A rectangular prism measures 6cm by 10cm by 8cm. The prism is cut into cubes of side 2cm. The number of such cubes will be	(A) 60 (B) 48 (C) 80 (D) 64
24 A car park advertises \$10 for first hour - or part thereof \$5 for each subsequent hour - or part thereof The cost of a $4\frac{1}{2}$ hour stay in the car park is	(A) \$25 (B) \$30 (C) \$35 (D) \$40
25 Which one of the given expressions is another way of writing $2000 + 800 + 50 + 7$?	(A) 2 857 (B) 28 507 (C) 28 057 (D) 20 857
26 Which number(s) on the number line are 3 times as far from 13 as they are from 5?	(A) 1 only (B) 11 only (C) 1 and 7 (D) 11 and 17
27 Through what angle would the minute hand of a watch move from 9 a.m. to 10:15 a.m.?	(A) 75° (B) 115° (C) 340° (D) 450°
28 A clock is set correctly at 2 p.m. It loses 3 minutes every hour. What will the clock read when the correct time is 11 a.m. the next day?	(A) 10:03 a.m. (B) 10:00 a.m. (C) 12:03 p.m. (D) 9:57 a.m.
29 A certain number of consecutive odd numbers, starting at 1 are added together. Their sum is 576. How many odd numbers were added?	(A) 576 (B) 24 (C) 36 (D) 40

30 The table shows the possible sums of the number of spots uppermost when two dice are tossed. What is the most likely sum that can occur?

		First die					
		1	2	3	4	5	6
Second die	1	2	3	4	5	6	7
	2	3	4	5	6	7	8
	3	4	5	6	7	8	9
	4	5	6	7	8	9	10
	5	6	7	8	9	10	11
	6	7	8	9	10	11	12

- (A) 6 (B) 8
(C) 7 (D) 12

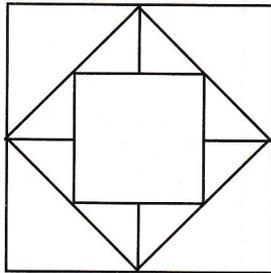
31 The average weight of 5 boys is 70kg. The average weight of 4 girls is 61kg. The average weight of the 9 children in kilograms is

- (A) 65 (B) 66
(C) 67 (D) 65.5

32 There are two 3-digit numbers between 200 and 300 which are divisible by 6 and 9 and have the units digit greater than the tens digit. They are:

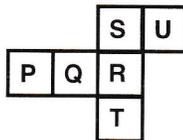
- (A) 288 and 270
(B) 216 and 256
(C) 268 and 234
(D) 216 and 234

33 The design shown is to be coloured so that no two adjoining areas have the same colour. What would be the least number of colours that could be used?



- (A) 9 (B) 4
(C) 3 (D) 2

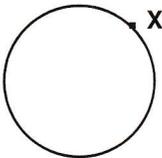
34 The sketch shows the net of a cube. What letter was on the face of the cube opposite the face lettered Q?



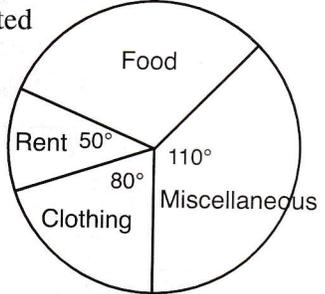
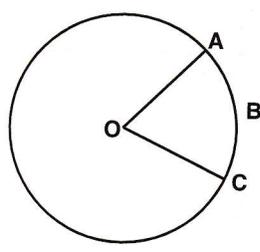
- (A) S (B) U
(C) T (D) R

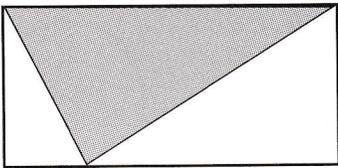
35 I have a 5 cent, 10 cent, 20 cent and 50 cent coin. What is the total number of amounts of money which I can form from some or all of these coins? (Don't include zero).

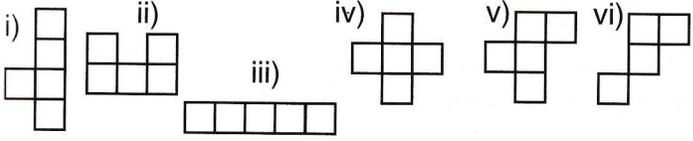
- (A) 15 (B) 18
(C) 24 (D) 16

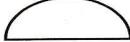
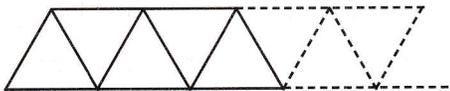
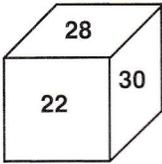
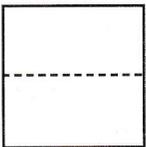
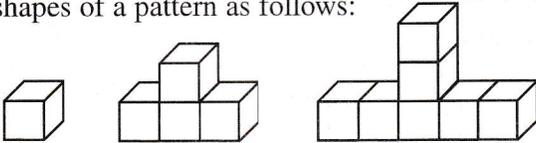
36 A party of 18 persons went to a restaurant. Each chose a \$21 meal, but 4 of them forgot to bring their money. In order to settle the total bill, those who brought their money each had to pay an extra	(A) \$5.25 (B) \$4.50 (C) \$1.50 (D) \$6
37 A chessboard consists of a square made up of 64 small squares of the same size. How many of these small squares are along the perimeter of the chessboard?	(A) 24 (B) 64 (C) 28 (D) 32
38 When doing a series of additions on a calculator, a student noted that she added 35 095 instead of 35.95. In order to obtain the correct total in a single step, she should now	(A) add 35.95 (B) subtract 35 059.05 (C) subtract 35 130.95 (D) add 35 130.95
39 Four students Peter, Quincy, Raymond and Susie are to be seated in a row so that Raymond and Susie are always together. How many different seating arrangements are possible?	(A) 6 (B) 8 (C) 24 (D) 12
40 Consider the numbers 2, 4, 6, ..., 124. How many times does the digit 2 occur in these numbers?	(A) 20 (B) 19 (C) 21 (D) 16
41  X is a point on a 20c coin. If the coin rolls in a straight line along the top of a flat table, the path of X is:	(A) ————— (B)  (C)  (D) 
42  What should the fourth square be to obtain a symmetrical pattern of four squares?	(A)  (B)  (C)  (D) 
43 Angela is 5 years older than Tony. Tony is 6 years younger than Kate. Angela is 14 years old. How old is Kate?	(A) 25 (B) 3 (C) 13 (D) 15
44 The teacher sat all the students in line. When he numbered them from left to right, Janine was number 6. When he numbered them from right to left, Janine was also number 6. How many students were there?	(A) 10 (B) 12 (C) 11 (D) 13
45 The next number in the sequence 3, 7, 15, 31, ... is:	(A) 65 (B) 53 (C) 63 (D) 73

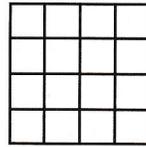
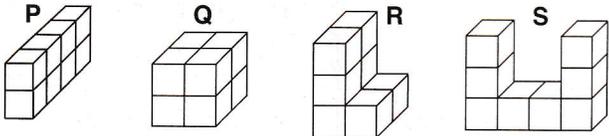
Selective Schools Paper 9

<p>1 If H stands for a number and $0.007 \times H = 70$, then H must stand for</p>	<p>(A) 10 (B) 100 (C) 1 000 (D) 10 000</p>
<p>Questions 2 - 3: The living expenses for a family are represented by the circle graph (pie chart) shown.</p>	
	
<p>2 The percentage spent on food is</p>	<p>(A) 25% (B) 35% (C) $66\frac{2}{3}\%$ (D) $33\frac{1}{3}\%$</p>
<p>3 If the total expenses for a week were \$360, how much was spent on food?</p>	<p>(A) \$90 (B) \$180 (C) \$120 (D) \$240</p>
<p>4</p> <div style="display: flex; align-items: center;">  <div style="flex: 1;"> <p>In the figure given, O is the centre of the circle which has a circumference of 30cm. If the arc ABC = 6cm, then angle AOC is</p> </div> </div>	<p>(A) 84° (B) 90° (C) 60° (D) 72°</p>
<p>5 A rectangular paddock is of area 0.24 hectares. If the longest side is 60m, then the perimeter, in metres, is</p>	<p>(A) 100 (B) 200 (C) 120 (D) 128</p>
<p>6 247mm as a percentage of 1km is</p>	<p>(A) 2.47% (B) 24.7% (C) 0.0247% (D) 0.247%</p>
<p>7 The value of $\frac{4}{100} + \frac{3}{10}$ is</p>	<p>(A) 0.0043 (B) 0.0034 (C) 0.34 (D) 0.43</p>
<p>8 A girl's average monthly salary for a certain year was \$1 010. If her average monthly salary for the first 11 months was \$1 000, then her salary for the month of December must have been</p>	<p>(A) \$310 (B) \$2 010 (C) \$1 120 (D) \$24 120</p>

9	The difference in the number of axes of symmetry of a rectangle and an equilateral triangle is	(A) 0 (C) 2	(B) 1 (D) 3
10	Two points P and Q are 2 000m apart. The length in centimetres of the join representing PQ on a map drawn to a scale 1 : 25 000 is	(A) $\frac{2}{5}$ (C) $12\frac{1}{2}$	(B) 80 (D) 8
11	An article costs \$72.60. If the cost is increased by $\frac{1}{5}$, the new cost is	(A) \$48.40 (C) \$90.75	(B) \$108.90 (D) \$96.80
12	The cost of a toy was increased by one fifth. If the toy sold for \$30, then the cost price was	(A) \$36 (C) \$20	(B) \$24 (D) \$25
13	If you express 0.75 of a kilometre in metres, you get	(A) 75 m (C) 7.5 m	(B) 7 500 m (D) 750 m
14	What would be paid in council rates on a property valued at \$65 000 at the rate of 2.3c in the dollar?	(A) \$149 500 (C) \$1 495	(B) \$1 505 (D) \$1 395
15	 <p>The fraction of the rectangle which is shaded is</p>	(A) $\frac{1}{2}$ (B) $\frac{1}{4}$ (C) $\frac{2}{5}$ (D) none of these	
16	One tap could fill a bucket in 20 minutes. Another tap could fill the same bucket in 30 minutes. If they were both used to fill the bucket at the same time, it would take	(A) 50 min. (C) 12 min.	(B) 25 min. (D) 10 min.
17	15 people are coming to dinner. How many tins of sliced peaches must you buy if each can serves 4 people?	(A) 60 (C) 4	(B) 3.75 (D) 3
18	$77 \div 2 + 9 =$	(A) 11 (B) 47.5 (C) 7 (D) none of these	
19	The digits of the number 4 193 are arranged first in ascending order and then in descending order. The difference between these two results would be	(A) 8 082 (C) 7 785	(B) 7 992 (D) 2 790

<p>20 The perimeter of a square is 20cm. The area of the square in cm^2 is</p>	<p>(A) 25 (B) 16 (C) 80 (D) 400</p>
<p>21 The smallest number divisible by 2, 5, 6 is</p>	<p>(A) 12 (B) 60 (C) 30 (D) 24</p>
<p>Questions 22-23 refer to the same rectangle.</p>	
<p>22 The length of a rectangle is 5 times its breadth. If the area of the rectangle is 80cm^2, then the perimeter of the rectangle is</p>	<p>(A) 48cm (B) 24cm (C) 36cm (D) none of these</p>
<p>23 A square has the same perimeter as the original rectangle. The difference in cm^2, in the areas of the square and the original rectangle is</p>	<p>(A) 25 (B) 64 (C) 0 (D) 36</p>
<p>24 The value of $\frac{0.1 \times 0.4}{5}$ is</p>	<p>(A) 0.08 (B) 0.008 (C) 0.8 (D) 0.0008</p>
<p>25 Which of these nets will <u>not</u> fold into an open box?</p> 	<p>(A) i, iv, v (B) i, ii, iv (C) ii, iii, vi (D) iii, v, vi</p>
<p>26 If July 31st is a Tuesday, what day of the week is July 13th of the same month?</p>	<p>(A) Wednesday (B) Thursday (C) Friday (D) Saturday</p>
<p>27 How many times does the minute hand of a clock rotate during the month of June?</p>	<p>(A) 720 (B) 30 (C) 1 800 (D) 43 200</p>
<p>28 How many 45c stamps may be purchased for \$10?</p>	<p>(A) 22 (B) 24 (C) 23 (D) 25</p>
<p>29 It takes Julie 30 minutes travelling at 80km/h to cover the distance from town P to town Q which is due north of P. After completing her business in Q, Julie returns towards P travelling for 20 minutes at 60km/h. At this stage, where will she be from P?</p>	<p>(A) 20km north of P (B) 20km south of P (C) 60km north of P (D) back at P</p>

<p>30 A hemisphere is placed flat side down and cut vertically in halves. What shape is the cut surface?</p>	<p>(A)  (B) </p> <p>(C)  (D) </p>
<p>31 A certain number between 50 and 70 when divided by 3 leaves a remainder of 1, and when divided by 5 leaves a remainder 3. The number is</p>	<p>(A) 54 (B) 68 (C) 61 (D) 58</p>
<p>32 In the sequence 2, 3, 7, 16, 32, ... the next number is</p>	<p>(A) 64 (B) 68 (C) 57 (D) 48</p>
<p>33 If each side of an equilateral triangle is 1cm, find the perimeter of the figure formed by placing 20 such triangles in a row as shown.</p> 	<p>(A) 41cm (B) 60cm (C) 42cm (D) 22cm</p>
<p>34 The numbers on the faces of this cube are consecutive even numbers. What is the largest possible number on the cube?</p> 	<p>(A) 30 (B) 32 (C) 34 (D) 36</p>
<p>35  A square sheet of paper is cut into half as shown. If each piece has a perimeter of 18cm, then the perimeter of the original square is:</p>	<p>(A) 24cm (B) 28cm (C) 20cm (D) 32cm</p>
<p>36 Small equal cubes are used to form the first 3 shapes of a pattern as follows:</p>  <p>How many small cubes will be used in the 10th shape?</p>	<p>(A) 27 (B) 28 (C) 30 (D) 31</p>
<p>37 The following solids are made of clay: a rectangular prism, a triangular prism, a square pyramid, a triangular pyramid. If each is cut through with a knife which ones could have a triangular section?</p>	<p>(A) triangular prism, square pyramid, triangular pyramid only (B) triangular prism and triangular pyramid only (C) triangular prism and square pyramid only (D) all of them</p>

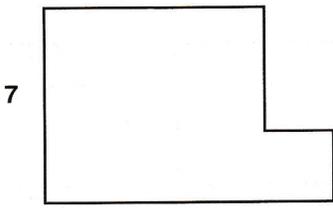
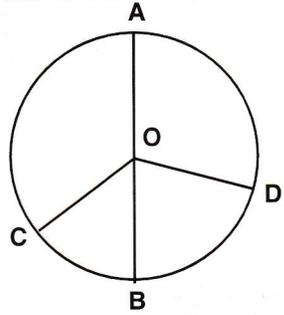
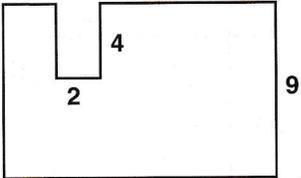
<p>38</p>  <p>The sketch shows two lengths of the same timber. If Ben can saw the first length into 3 pieces in 3 minutes, how long should it take him to saw the second length into 9 pieces?</p>	<p>(A) 9 min. (B) 12 min. (C) 10 min. (D) 15 min.</p>
<p>39 Which of the following operations with whole numbers will <u>always</u> give a whole number? i) addition ii) multiplication iii) division</p>	<p>(A) i) only (B) ii) only (C) i) and ii) only (D) ii) and iii) only</p>
<p>40 A rectangle is 150cm by 50cm. The area in m^2 is:</p>	<p>(A) 7 500 (B) 75 (C) 7.5 (D) 0.75</p>
<p>41 Which of the given results is approximately equal to 1.97×3.142?</p>	<p>(A) 60 (B) 6 (C) 0.6 (D) 0.06</p>
<p>42 Jan and Michelle are given the same amount of pocket money. Jan buys 2 apples and has 70 cents left. Michelle buys 7 apples and has 20 cents left. What amount of money did each receive?</p>	<p>(A) 90c (B) \$1.20 (C) 25c (D) \$1.00</p>
<p>43</p>  <p>A square of side 10m is to be painted on the concrete quadrangle at a school. By drawing equally spaced vertical and horizontal lines, it is then divided into smaller squares as shown. The total length in metres of all lines to be painted will be:</p>	<p>(A) 100 (B) 80 (C) 60 (D) none of these</p>
<p>44 A block in the shape of a rectangular prism with dimensions 6cm x 3cm x 2cm is carefully dropped into a rectangular tank measuring 8m x 6m x 3m which is full of water. How much water is displaced?</p>	<p>(A) 36L (B) 36mL (C) 144L (D) 108mL</p>
<p>45 Thirty two cubes each of side 1 cm are placed to form four different solids P, Q, R, S as shown in the sketches.</p>  <p>What is the difference in surface areas between the solids with the greatest and least surface areas?</p>	<p>(A) $10cm^2$ (B) $6cm^2$ (C) $4cm^2$ (D) $12cm^2$</p>

Selective Schools Paper 10

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1	$2^4 + 4^2$ simplifies to	(A) 48 (C) 32	(B) 256 (D) 16
2	If $\frac{1}{3}$ of a number is 42, then the number is	(A) 48 (C) 64	(B) 70 (D) 72
3	Which of the given results has the largest value?	(A) $\frac{3}{5}$ (C) $\frac{1}{20}$	(B) $\frac{1}{2}$ (D) $\frac{1}{4}$
4	If you arrange the numbers 0.41, 0.39, 0.4, 0.49 in ascending order (i.e. from smallest to largest) the correct arrangement would be	(A) 0.49, 0.41, 0.4, 0.39 (C) 0.39, 0.41, 0.4, 0.49	(B) 0.49, 0.41, 0.39, 0.4 (D) 0.39, 0.4, 0.41, 0.49
5	Which of the given numbers is only one tenth as large if you leave out the zero?	(A) 23.10 (C) 231.0	(B) 2301 (D) 2310
6	$\frac{1}{5}$ of 15 is the same as $\frac{1}{4}$ of	(A) 12 (C) $\frac{3}{4}$	(B) 300 (D) $\frac{1}{5}$
7	It takes me 55 minutes to get to school. When should I leave home if I must be there at 9:12 a.m.?	(A) 8:37 a.m. (C) 8:17 a.m.	(B) 8:03 a.m. (D) 8:22 a.m.
8	What number must be placed in the boxes to make the number sentence true? $\square \times 8 = 2 \times (\square + 2) + 14$	(A) 4 (C) 5	(B) 2 (D) 3
9	Twelve litres of oil can be bought for \$16.20. How many litres of oil could you buy for \$4.05?	(A) 3 (C) 2	(B) 4 (D) 3.5
10	The most likely number to complete the series 4, 7, 12, 19, 28, \square is	(A) 42 (C) 36	(B) 40 (D) 39
11	Concentrated washing powder can be bought in 4 different sizes. Which is the best buy?	(A) 250g for \$6.25 (C) 1kg for \$25.50	(B) 375g for \$9.00 (D) 1.5kg for \$37.65
12	If the digits in the hundreds column and the tenths column of the number 312.4 were interchanged, then compared to the original number, the new number would be	(A) smaller by 99.9 (C) smaller by 0.1	(B) larger by 99.9 (D) smaller by 180

<p>13 I went shopping with \$20. Buying school books took one fifth of it. I spent $\frac{3}{4}$ of what was left on a bag. I was left with</p>	<p>(A) \$4 (B) \$5 (C) \$7 (D) \$6.50</p>
<p>14 The sum of $\frac{3}{4}$ and $\frac{1}{2}$ is multiplied by 4. The result is</p>	<p>(A) $2\frac{3}{4}$ (B) $3\frac{1}{2}$ (C) $2\frac{2}{3}$ (D) 5</p>
<p>15 Find half the product of $3\frac{1}{2}$ and 4.</p>	<p>(A) 7 (B) 9 (C) 8 (D) 14</p>
<p>16 One of the given expressions does not equal $\frac{2}{5}$. Which is it?</p>	<p>(A) $\frac{7 \times 2}{5 \times 7}$ (B) $\frac{2 + 4}{7 + 8}$ (C) $\frac{2 + 7}{5 + 7}$ (D) $(6 + 2) \div (11 + 3 \times 3)$</p>
<p>17 The difference between $4\frac{1}{2}$ and $3\frac{3}{4}$ is</p>	<p>(A) $1\frac{1}{4}$ (B) $1\frac{1}{2}$ (C) $\frac{3}{4}$ (D) $\frac{1}{2}$</p>
<p>18 How many litres of water would be needed to half fill a cubic metre container?</p>	<p>(A) 500 (B) 50 (C) 5 (D) 5 000</p>
<p>19 Each time that a ball bounces, it rebounds to $\frac{3}{4}$ of the height of its previous bounce. If the ball is dropped from a window which is 64m above the ground, how far will it have travelled by the time it hits the ground for the fourth time?</p>	<p>(A) 175m (B) 286m (C) 350m (D) 192m</p>
<p>20 Give the most likely next fraction in the series: $\frac{43}{7}, \frac{31}{6}, \frac{21}{5}, \frac{13}{4}, \frac{7}{3}, \square$</p>	<p>(A) 1 (B) $\frac{1}{2}$ (C) $\frac{2}{3}$ (D) $\frac{3}{2}$</p>
<p>21 Find the value of $3 \times \\$21.57 + 2 \times \\93.78</p>	<p>(A) \$252.27 (B) \$194.31 (C) \$576.75 (D) \$692.10</p>
<p>22 I bought a bike for \$411.23 but I had to sell it for \$389.76. I lost</p>	<p>(A) \$21.57 (B) \$121.47 (C) \$21.27 (D) \$21.47</p>
<p>23 An estate agent gets 7c in the dollar for collecting rents. One property rents for \$125 per week. For collecting this rent he would receive</p>	<p>(A) \$875 (B) \$87.50 (C) \$8.75 (D) \$0.88</p>

<p>24 The excursion cost each of us \$2.93. There were 200 of us altogether, so we paid a total of</p>	<p>(A) \$5 850 (B) \$493 (C) \$58 600 (D) \$586</p>
<p>25 Find the perimeter of the figure below; (all angles are right angles).</p>  <p style="text-align: center;">Units are in cm.</p>	<p>(A) 19 cm (B) 38 cm (C) 84 cm (D) not enough information to tell</p>
<p>26 If X and Y represent digits, then the number 2XY2 is divisible by 8. The values of X and Y must be</p>	<p>(A) X = 3 and Y = 7 (B) X = 8 and Y = 6 (C) X = 9 and Y = 4 (D) X = 8 and Y = 7</p>
<p>27 O is the centre of the circle whose radius is 8cm.</p>  <p>The total length of AB, OC and OD is:</p>	<p>(A) 16 cm (B) 12 cm (C) 32 cm (D) 24 cm</p>
<p>28 All the angles in the figure are right angles.</p>  <p>The area in square units is</p>	<p>(A) 91 (B) 89 (C) 87 (D) not enough information to tell</p>
<p>29 Rounded off to the nearest thousand, the number 147 681 becomes</p>	<p>(A) 147 700 (B) 147 000 (C) 148 000 (D) 148 700</p>
<p>30 2500 divided by 47 is approximately</p>	<p>(A) 53 (B) 50 (C) 60 (D) 49</p>

<p>31 How many square tiles of side $1\frac{1}{2}$cm would be needed to tile a row $9\frac{1}{2}$cm long?</p>	<p>(A) 6 (B) 7 (C) 9 (D) 49</p>
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Questions 32 - 34 refer to the following graph.
The graph shows how a girl's salary is spent.

Category	Amount (\$)
Rent	120
Food	60
Clothes	40
Savings	30

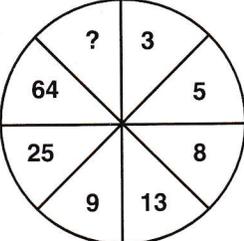
<p>32 What fraction of her salary is spent on rent?</p>	<p>(A) $\frac{1}{2}$ (B) $\frac{3}{25}$ (C) $\frac{1}{25}$ (D) $\frac{3}{4}$</p>
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<p>33 What percentage of her salary is saved?</p>	<p>(A) 40% (B) 30% (C) 12% (D) 25%</p>
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<p>34 If her salary were to be put on a pie chart, what angle, to the nearest degree, at the centre of the circle would correspond to the money spent on food?</p>	<p>(A) 86° (B) 60° (C) 90° (D) 100°</p>
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<p>35 $324 \times 11 = 3\,564$. If you knew this fact and wanted to use it to find the value of 648×33, you would</p>	<p>(A) multiply 648 by 2 (B) multiply 3 564 by 3 (C) multiply 648 by 6 (D) multiply 3 564 by 6</p>
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<p>36</p> <table border="1" style="margin-left: 20px;"> <tr> <td>2</td> <td>9</td> <td>4</td> <td>12</td> <td>7</td> </tr> <tr> <td>3</td> <td>17</td> <td>7</td> <td>23</td> <td></td> </tr> </table> <p>The most likely number which should be placed in the empty box to complete the pattern would be</p>	2	9	4	12	7	3	17	7	23		<p>(A) 13 (B) 33 (C) 83 (D) 271</p>
2	9	4	12	7							
3	17	7	23								

<p>37 Four of us spent last Saturday collecting for charity. Our collections were: Fred: \$23.06 Emma: \$57.81 Sam: \$12.88 Me: \$24.73 What was the average amount that we collected?</p>	<p>(A) \$29.62 (B) \$31.56 (C) \$29.12 (D) \$28.98</p>
<p>38 Two whole numbers add to 20. If they are multiplied together, the largest result possible will be</p>	<p>(A) 100 (B) 19 (C) 99 (D) 112</p>
<p>39 If 8 men can do a piece of work in 15 days, then 10 men could do the same work in</p>	<p>(A) 12 days (B) $18\frac{3}{4}$ days (C) 8 days (D) 10 days</p>
<p>40 A runner covers 4 metres each second. This is the same as</p>	<p>(A) 40km/h (B) 240km/h (C) 14.4km/h (D) 24.6km/h</p>
<p>41 In copying a product from the board, a student copied down $2\square7 \times 39 = 11\ 193$, but couldn't read the digit where the box is. The digit which should be in the box is</p>	<p>(A) 0 (B) 7 (C) 4 (D) 8</p>
<p>42 Which number should be used to complete the pattern?</p> 	<p>(A) 21 (B) 144 (C) 1 (D) 169</p>

<p>43 Which diagram is the "odd one out"?</p>	<p>(A) (B) (C) (D) (E)</p>
<p>44 How many axes of symmetry does a semicircle have?</p>	<p>(A) 2 (B) 3 (C) 1 (D) as many as you like</p>
<p>45 I am thinking of a number. When I square it and add the result to twice the original number, I get 99. The original number must be</p>	<p>(A) 18 (B) 90 (C) 7 (D) 9</p>