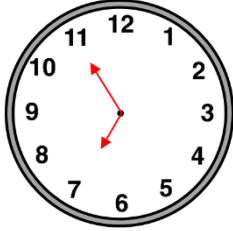
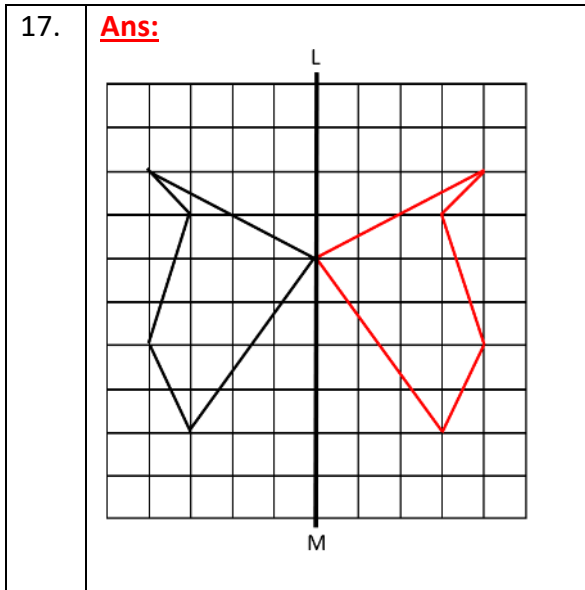


SECTION 1

1.	Ans: 15 307	10.	$2 \times 10\,000 = 20\,000$ $6 \times 1\,000 = 6\,000$ $4 \times 10 = 40$ $5 \times 1 = 5$ $20\,000$ $6\,000$ 40 $+ \quad 5$ $\hline 26\,045$ Ans: 26 045
2.	Selling price $= 25 \text{ hairbrushes} \times \$9.00 = \$225.00$ Profit = Selling Price – Cost Price $= \$225.00 - \$175.00 = \$50.00$ Ans: \$50.00	11.	Average weight of 1 lamp in kg $= 42 \text{ kg} \div 6 = 7 \text{ kg}$ $1 \text{ kg} = 1\,000 \text{ grams}$ Weight of 1 lamp in grams $= 7 \text{ kg} \times 1\,000 = 7\,000 \text{ g}$ Ans: 7 000 g
3.	$\frac{64-8}{80-10} \times \frac{100}{1} = \frac{8}{10} \times \frac{100}{1} = 8 \times 10 = 80\%$ Ans: 80%	12.	Ans: 
4.	Total cost of the items $= \$11.30 + \$12.85 = \$24.15$ 15c is $< 50\text{c}$, so $\$24.15$ rounded off to the nearest dollar = $\$24.00$ Ans: \$24.00	13.	$1 \text{ hour} = 60 \text{ minutes}$ $3 \text{ hours} = 3 \times 60 = 180 \text{ minutes}$ $\frac{90}{100} \times \frac{180}{1} = 9 \times 18 = 162 \text{ minutes}$ Ans: 162 minutes
5.	$(7 \times 8) + 2 = 56 + 2 = 58$ $8 \frac{2}{7} = \frac{58}{7}$ Ans: $\frac{58}{7}$	14.	Area = Side \times Side $= 12 \text{ cm} \times 12 \text{ cm} = 144 \text{ cm}^2$ Ans: 144 cm²
6.	$40\text{c} - 25\text{c} = 15\text{c}$ $15\text{c} - 10\text{c} = 5\text{c}$ $25\text{c} + 10\text{c} + 5\text{c} = 40\text{c}$ Ans: 25c, 10c, 5c coin pieces	15.	Angle R is $< 90^\circ =$ acute angle Ans: An acute angle
7.	Number of chocolate cupcakes $= (8 \times 2) + 6$ $= 16 + 6 = 22 \text{ chocolate cupcakes}$ Ans: 22 chocolate cupcakes	16.	Ans: Lines CD and GH
8.	Percent of hair ties Cintra kept $= 100\% - 60\% = 40\%$ $40\% = \frac{40}{100} = 0.4$ Ans: 0.4		
9.	$3 \times \frac{2}{9} = \frac{3-1}{1} \times \frac{2}{9-3} = \frac{2}{3}$ Ans: $\frac{2}{3}$		

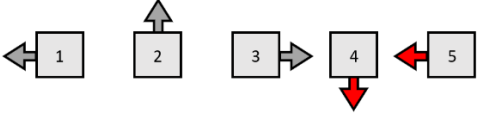


18.	Total = Mean x number of numbers = $26 \times 8 = 208$ Ans: 208
19.	YouTube = 14 Kindle = 9 $14 - 9 = 5$ students Ans: 5 students
20.	Total number of curtain panels sold during the week = $(8 + 5 + 6 + 4 + 7) \times 10$ = $30 \times 10 = 300$ curtain panels Ans: 300 curtain panels

SECTION 2

21.	Number of eggs needed for 1 cake = $6 \text{ eggs} \div 2 \text{ cakes} = 3 \text{ eggs}$ Number of cakes = $24 \text{ eggs} \div 3 = 8 \text{ cakes}$ Ans: 8 cakes
22.	$15 + 8 = 23$ Ans: $(86 \times 15) + (86 \times 8)$ is the same as 86×23, so the answer would be incorrect.
23.	Number of high heels = $\frac{1}{4-1} \times \frac{60-15}{1} = 15$ high heels Number of high heels and sneakers = $15 + 30 = 45$ shoes Number of sandals = $60 - 45 = 15$ sandals Fraction of the shoes that was sandals = $\frac{15}{60}$ when reduced by 15 = $\frac{1}{4}$ Ans: $\frac{1}{4}$

24.	Cost of the split peas = $\$8.75 \times 3 = \26.25 Cost of the flour = $\$5.75 \times 2 \text{ kg} = \11.50 Total cost of the items = $\$26.25 + \$11.50 = \$37.75$ Ans: \$37.75
25.	Discount = $20\% \times \text{Cost of a cricket bat}$ = $\frac{20}{100} \times \frac{400}{1} = 20 \times 4 = \80.00 Reduced price of a cricket bat = Regular price – Discount = $\$400.00 - \$80.00 = \$320.00$ Total cost of 4 cricket bats after the discount = $\$320.00 \times 4 = \$1\,280.00$ Ans: \$1 280.00

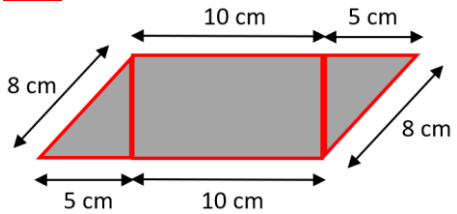
26.	$\sqrt[3]{216}$ $216 \div 2 = 108$ $108 \div 2 = 54$ $54 \div 2 = 27$ $27 \div 3 = 9$ $9 \div 3 = 3$ $3 \div 3 = 1$ $(2 \times 2 \times 2) \times (3 \times 3 \times 3) = 216$ $\sqrt[3]{216} = 2 \times 3 = 6$ $7^2 = 7 \times 7 = 49$ $49 + 6 = 55$ <u>Ans: 55</u>	30.	Miss Mindy's: 1 kg of peas = \$5.20 Grocer Green: 1 kg = 1000 g 1 000 g \div 250 g = 4 1 kg of peas = \$1.40 \times 4 = \$5.60 Pop's Shop: 1 kg = 1000 g 1 000 g \div 500 g = 2 1 kg of peas = \$2.70 \times 2 = \$5.40 <u>Ans: Grocer Green</u>
27.	$\begin{array}{r} 175 \\ \times 0.08 \\ \hline 14.00 \end{array}$ <u>Ans: 14</u>	31.	Cost of the journey = \$3.00 \times 50 = \$150.00 Amount of money each person paid = \$150.00 \div 2 = \$75.00 <u>Ans: \$75.00</u>
28.	$66 \times 37 = 2442$ $2442 - 312 = 2130$ <u>Ans: 2 130</u>	32.	$62.7 \text{ kg} - 6.1 \text{ kg} = 56.6 \text{ kg}$ Sam's weight = $56.6 \text{ kg} \div 2 = 28.3 \text{ kg}$ Fred weight = $28.3 + 6.1 = 34.4 \text{ kg}$ <u>Ans:</u> Fred: <u>34.4 kg</u> Sam: <u>28.3 kg</u>
29.	1 hour = 60 minutes Length of time Giselle took to complete the exam = 60 + 20 = 80 minutes Length of time Hema took to complete the exam = $\frac{4}{5-1} \times \frac{80-16}{1} = 4 \times 16 = 64$ minutes 64 minutes = 1 hour 4 minutes Time Hema completed the exam = hr min $\begin{array}{r} 9 \ 30 \\ + 1 \ 04 \\ \hline 10 \ 34 \end{array} = 10:34 \text{ a.m.}$ <u>Ans: 10:34 a.m.</u>	33.	The box is a cuboid. <u>Ans:</u> Faces: <u>6</u> Vertices: <u>8</u>
		34.	<u>Ans:</u> 
		35.	Total number of marks scored = Mean mark \times nos. of subjects = $91 \times 4 = 364$ Sum of marks scored in 3 subjects = $100 + 93 + 79 = 272$ Science mark = $364 - 272 = 92$ <u>Ans: 92</u>

36.	<p>Total number of boxes of thumb tacks = $(7 + 5 + 3 + 1 + 5) \times 5$ $= 21 \times 5 = 105$ boxes of thumb tacks</p> <p><u>Method 1</u> Profit made from the sale of 1 box of thumb tacks $= \text{Selling price} - \text{Cost price}$ $= \\$7.00 - \\$4.00 = \\$3.00$</p> <p>Profit made from the sale of thumb tacks that week $= \text{Profit made from the sale of 1 box of thumb tacks} \times \text{number of boxes sold that week}$ $= \\$3.00 \times 105 \text{ boxes} = \\315.00</p>
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	<p><u>Method 2</u> Cost price of all the boxes $= 105 \times \\$4.00 = \\420.00 Selling price of all the boxes $= 105 \times \\$7.00 = \\735.00</p> <p>Profit made from the sale of thumb tacks that week $= \text{Selling price} - \text{Cost price}$ $= \\$735.00 - \\$420.00 = \\$315.00$ <u>Ans: \$315.00</u></p>
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SECTION 3

37.	<p>Cost of 4 pineapples = $\\$15 \times 4 = \\60</p> <p>$14 \div 7 = 2$ Cost of 14 oranges = $\\$20 \times 2 = \\40</p> <p>$20 \div 5 = 4$ Cost of 20 apples = $\\$20 \times 4 = \\80</p> <p>Total cost = $\\$60 + \\$40 + \\$80 = \\180 Change received = $\\$200 - \\$180 = \\$20$ which can buy 7 oranges <u>Ans: 7 oranges</u></p>
38.	<p>Perimeter = $(\text{length} + \text{width}) \times 2$ $= (12 \text{ m} + 8 \text{ m}) \times 2$ $= 20 \text{ m} \times 2 = 40 \text{ m}$</p> <p>Half the distance $= 40 \div 2 = 20 \text{ m}$</p> <p>Number of days to walk 320 m $= 320 \text{ m} \div 20 \text{ m} = 16 \text{ days}$ <u>Ans: 16 days</u></p>

39.	<p>(a) <u>Ans:</u></p>  <p>(b) Perimeter $= 10 \text{ cm} + 10 \text{ cm} + 8 \text{ cm} + 8 \text{ cm} + 5 \text{ cm} + 5 \text{ cm} = 46 \text{ cm}$ <u>Ans: 46 cm</u></p>
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40. (a)

Method 1
 Total number sneakers icons
 $= 7 + 6 + 2 + 4 + 5 + 8 = 32$

Number of sneakers icons on
 Thursday = 4

Percent of the pairs of sneakers that
 were sold on Thursday
 $= \frac{4}{32} \times \frac{100}{1} = 12\frac{1}{2}\%$

Method 2
 Total number of pairs of sneakers
 sold = $(7 + 6 + 2 + 4 + 5 + 8) \times 10$
 $= 32 \times 10 = 320$ pairs of sneakers

Number of pairs of sneakers sold on
 Thursday
 $= 4 \times 10 = 40$ pairs of sneakers

Percent of the pairs of sneakers that
 were sold on Thursday
 $= \frac{40}{320} \times \frac{100}{1} = 12\frac{1}{2}\%$

Ans: $12\frac{1}{2}\%$

(b)

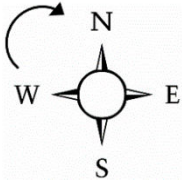
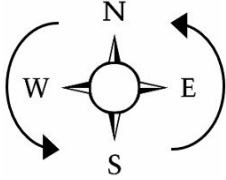
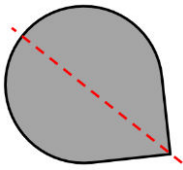
Method 1
 Number of pairs of socks handed
 out that week
 $= \text{Number of icons} \times 3$
 $= 96$ pairs of socks

Method 2
 320 pairs of sneakers $\div 10 = 32$
 Number of pairs of socks handed
 out that week
 $= 32 \times 3 = 96$ pairs of socks

Ans: 96 pairs of socks

SECTION 1

1.	Ans: 9	10.	Method 1 $\frac{2}{3} = \$12.50$ $\frac{1}{3} = \$12.50 \div 2 = \6.25 $\frac{3}{3} = \$6.25 \times 3 = \18.75 Method 2 $\$12.50 \div \frac{2}{3} = \frac{12.50 \cdot 3}{2} = 18.75$ $= \$6.25 \times 3 = \18.75 Ans: \$18.75								
2.	$\begin{array}{r} 0208 \\ 8 \overline{)1664} \end{array}$ Ans: 208	11.	1 kg = 1000 g 5.6 kg x 1000 = 5 600 g Ans: 5 600 g								
3.	75% = $\frac{75}{100}$ when reduced by 25 = $\frac{3}{4}$ Ans: $\frac{3}{4}$	12.	The triangle is an isosceles triangle. Combined length of the two equal sides = 12 cm x 2 = 24 cm Length of side A = Perimeter – 24 cm = 32 cm – 24 cm = 8 cm Ans: 8 cm								
4.	<table border="1" style="margin-left: auto; margin-right: auto;"><thead><tr><th>Thousands</th><th>Hundreds</th><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td>2</td><td>2</td><td>9</td><td>5</td></tr></tbody></table> <p>Hundreds digit is less than 5 so, the thousands digit remains the same. Ans: 2 000</p>	Thousands	Hundreds	Tens	Ones	2	2	9	5	13.	Length of side = $\sqrt{\text{Area}}$ = $\sqrt{121 \text{ cm}^2} = 11 \text{ cm}$ Ans: 11 cm
Thousands	Hundreds	Tens	Ones								
2	2	9	5								
5.	$\begin{array}{r} 7.00 \\ - 3.85 \\ \hline 3.15 \end{array}$ Ans: 3.15	14.	Hamza took less time and finished first. Ans: Hamza								
6.	$7^2 = 7 \times 7 = 49$ $49 - 23 = 26$ Ans: 26										
7.	$\frac{1}{6} = 23$ $\frac{6}{6} = 23 \times 6 = 138$ Ans: 138										
8.	Use inverse operations. $6 \times 7 = 42$ $42 - 6 = 36$ Ans: 36										
9.	$1 \times 25\text{¢} = 25\text{¢}$ $2 \times 10\text{¢} = 20\text{¢}$ $25\text{¢} + 20\text{¢} = 45\text{¢}$ Ans: 3 coins										

15.	<p>$\frac{1}{4}$ turn in a clockwise direction: north</p>  <p>Two $\frac{1}{2}$ turns in an anticlockwise direction: north</p>  <p>Ans: north</p>
16.	<p>Ans:</p> 

17.	Ans: B
18.	<p>Goals scored by teams A, B, D and E $= (3 + 5 + 2 + 4) \times 2$ $= 14 \times 2 = 28$ Goals scored by team C $= 38 - 28 = 10$ Ans: 10</p>
19.	<p>The sum of items $= \text{Mean} \times \text{Number of items}$ $= 42 \times 6 = 252$ Ans: 252</p>
20.	<p>The most frequent shoe size or mode is 4. Ans: 4</p>

SECTION 2

21.	<p>$\frac{3}{5} + \frac{3}{10}$</p> <p>$\frac{3}{5} = \frac{6}{10}$</p> <p>Fraction of allowance spent on lunch and snacks $= \frac{6}{10} + \frac{3}{10} = \frac{9}{10}$ Fraction of allowance saved $= \frac{10}{10} - \frac{9}{10} = \frac{1}{10}$ Ans: $\frac{1}{10}$</p>
22.	<p>$475 \div 19 = 25$ students Ans: 25 students</p>
23.	<p>First number $= 9 \times 2 = 18$ Second number $= \text{sum} - 18$ $= 54 - 18 = 36$ Ans: 18 and 36</p>

24.	<p>$B = (A + C) \div 2$</p> <p>$A = \frac{1}{5} = \frac{2}{10}$</p> <p>$A + C = \frac{2}{10} + \frac{3}{10} = \frac{5}{10}$</p> <p>$\frac{5}{10} \div 2 = \frac{5}{10} \times \frac{1}{2} = \frac{5}{20}$ when reduced by $5 = \frac{1}{4}$ Ans: $\frac{1}{4}$</p>
25.	<p>Number of red pens $= 86 - 37$ blue pens $= 49$ red pens Number of pencils $= 49 \times 2 = 98$ pencils Ans: 98 pencils</p>

26.	Use inverse operations. $188 - 67 = 121$ (N represents the number) $N^2 = 121$ $N = \sqrt{121} = 11$ Ans: 11	30.	Weight of 2 apples $= 600 \text{ g} \times 2 = 1\,200 \text{ g}$ $1\,000 \text{ g} = 1 \text{ kg}$ Weight of apples in kg $1\,200 \text{ g} \div 1000 = 1.2 \text{ kg}$ Weight of 2 paw paws $= 3.3 \text{ kg} \times 2 = 6.6 \text{ kg}$ Total weight $= 6.6 \text{ kg} + 1.2 \text{ kg} = 7.8 \text{ kg}$ Ans: 7.8 kg																		
27.	Profit $= \frac{25}{100} \times \frac{1}{4} \times \frac{\$1260}{1} = \$1260 \div 4 = \315 Selling price of bicycle $= \$1\,260 + \$315 = \$1\,575$ Ans: \$1 575.00	31.	$\frac{3}{4} \text{ hr} = 45 \text{ mins}$ Length of both halves $= 45 \text{ mins} \times 2 = 90 \text{ mins}$ Total length of concert $= 90 \text{ mins} + 20 \text{ mins} = 110 \text{ mins}$ $110 \text{ mins} = 1 \text{ hr } 50 \text{ mins}$ Time concert ended $= \text{hr} \quad \text{min}$ $\quad 8 \quad 50$ $+ \quad 1 \quad 50$ $\quad \underline{\quad 9^{+1} \quad 100^{-60}}$ $\quad 10 \quad 40 \quad 10:40 \text{ p.m.}$ Ans: 10:40 p.m.																		
28.	$14 \div 7 = 2$ 14 limes are sold for $= \$20 \times 2 = \40 Cost of apples $= \text{Total cost} - \text{cost of limes}$ $= \$120 - \$40 = \$80$ $\$80 \div 20 \text{ apples} = \4 per apple $\$20 \div \$4 = 5 \text{ apples}$ Ans: 5 apples	32.	$1 \text{ km} = 1000 \text{ m}$ $\text{Day 2} = 3.75 \text{ km} = 3 \text{ km } 750 \text{ m}$ Total distance covered = sum of the 3 days <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>km</th> <th>m</th> </tr> </thead> <tbody> <tr> <td>Day 1</td> <td>2</td> <td>250</td> </tr> <tr> <td>Day 2</td> <td>3</td> <td>750</td> </tr> <tr> <td>Day 3</td> <td>+ 3</td> <td>500</td> </tr> <tr> <td></td> <td>$\underline{\quad 8^{+1} \quad 1500}$</td> <td></td> </tr> <tr> <td></td> <td>9</td> <td>500</td> </tr> </tbody> </table> Ans: 9 km 500 m		km	m	Day 1	2	250	Day 2	3	750	Day 3	+ 3	500		$\underline{\quad 8^{+1} \quad 1500}$			9	500
	km	m																			
Day 1	2	250																			
Day 2	3	750																			
Day 3	+ 3	500																			
	$\underline{\quad 8^{+1} \quad 1500}$																				
	9	500																			
29.	Area of square = side x side $= 6 \text{ cm} \times 6 \text{ cm} = 36 \text{ cm}^2$ Area of rectangle = length x breadth $= 12 \text{ cm} \times 3 \text{ cm} = 36 \text{ cm}^2$ Ans: 36 cm² The square and rectangle have the same area because the length of the rectangle is twice the side of the square and the breadth of the rectangle is half the side of the square. The length and width of another similar rectangle would be 9 cm x 4 cm. Other possible answers include: 36 cm x 1 cm, 18 cm x 2 cm, 8 cm x 4.5 cm, or any other two values when multiplied equal 36 cm.	33.	Ans: A half turn																		

34. **Ans: It is a cube with 12 edges, 6 faces and 8 vertices.**

35. Car = 14
 Bus = 12
 Number of students who walk and cycle
 $= 40 - (14 + 12)$
 $= 40 - 26 = 14$ students
 Walk and cycle separately
 $= 14 \div 2 = 7$ students

Ans:

	Number of students
Car	
Bus	
Walk	
Cycle	

36. Total number of pictures
 $= (2 + 5 + 3 + 2) \times 8$
 $= 12 \times 8 = 96$ pictures
 Mean number of pictures stored by each person
 $= 96 \div 4 = 24$ pictures

Ans: 24 pictures

SECTION 3

37. Number of mangoes Dwayne picks
 $= 300 + 120 = 420$ mangoes

Number of boxes Alex uses
 $= 300 \div 50 = 6$ boxes

Number of boxes Dwayne uses
 $= 420 \div 60 = 7$ boxes

Difference in the number of boxes packed
 $= 7 - 6 = 1$ box

Ans: 1 box









38. Decimal fraction of the race Raj ran on Sunday
 $= 1.0 - 0.4 = 0.6$

Distance Raj ran on Sunday
 $= 90 \text{ km} \times 0.6 = 54 \text{ km}$

Distance Raj ran before he stopped for lunch on Sunday
 $= \frac{5}{9-1} \times \frac{54-6}{1} = 5 \times 6 = 30 \text{ km}$

Ans: 30 km

39. **Ans:**

Name of Shape	Regular Shape	Irregular Shape
Quadrilateral		
Pentagon		
Hexagon		
Octagon		

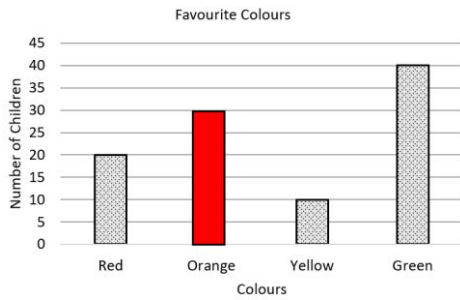
40.

(a)

Number of children who favoured the other 3 colours

$$= 20 + 10 + 40 = 70$$

Number of children who favoured orange = $100 - 70 = 30$

Ans:

(b)

Method 1

Percent of children who favoured

$$\text{green} = \frac{40}{100} = 40\%$$

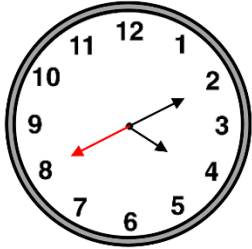
Method 2

Percent of children who favoured

$$\text{green} = \frac{40}{100} \times \frac{100}{1} = 40\%$$

Ans: 40%

SECTION 1

1.	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Hundreds</th> <th>Tens</th> <th>Ones</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>4</td> <td>8</td> </tr> <tr> <td>8</td> <td>5</td> <td>7</td> </tr> <tr> <td>9</td> <td>6</td> <td>0</td> </tr> <tr> <td>8</td> <td>5</td> <td>5</td> </tr> </tbody> </table> <p>Ans: 960, 857, 855, 848</p>	Hundreds	Tens	Ones	8	4	8	8	5	7	9	6	0	8	5	5	10. $8 + 28 = 36$ $\sqrt{36} = 6$ Ans: 6
Hundreds	Tens	Ones															
8	4	8															
8	5	7															
9	6	0															
8	5	5															
2.	Down payment $= \frac{25-1}{100-4} \times \frac{8000}{1} = \$8000 \div 4 = \$2000$ Ans: \$2 000.00	11. $\frac{1}{4} \times 60 \text{ minutes} = 15 \text{ minutes}$ 2 complete $\frac{1}{4}$ turns $= 15 \text{ minutes} \times 2 = 30 \text{ minutes}$ New position of the minute hand $= 10 \text{ minutes} + 30 \text{ minutes}$ $= 40 \text{ minutes}$ Ans: 															
3.	$\frac{3}{8} \times \frac{100}{1} = \frac{300}{8} = 37\frac{1}{2}\%$ Ans: 37 $\frac{1}{2}$ %	12. $1\ 000 \text{ g} = 1 \text{ kg}$ $330 \text{ g} = 330 \div 1\ 000 = 0.33 \text{ kg}$ Ans: 0.33 kg															
4.	$7 \times 10\text{c} = 70\text{c}$ $4 \times 5\text{c} = 20\text{c}$ $70\text{c} + 20\text{c} = 90\text{c}$ Ans: 90c	13. <u>Method 1</u> Total length of 2 sides of the square $= \text{Perimeter} \div 2$ $= 48 \text{ cm} \div 2 = 24 \text{ cm}$ <u>Method 2</u> Length of 1 side of a square $= \text{Perimeter} \div 4$ $= 48 \text{ cm} \div 4 = 12 \text{ cm}$ Total length of 2 sides of the square $= 12 \text{ cm} \times 2 = 24 \text{ cm}$ Ans: 24 cm															
5.	$\begin{array}{r} 3.00 \\ - 0.16 \\ \hline 2.84 \end{array}$ Ans: 2.84	14. Number of cubes in the object $= L \times W \times H$ $= 4 \times 2 \times 4 = 32 \text{ cubes}$ Volume of the object $= 32 \text{ cubes} \times 8 \text{ cm}^3 = 256 \text{ cm}^3$ Ans: 256 cm³															
6.	Selling price > cost price Ans: Profit																
7.	$\frac{2}{5-1} \times \frac{20-4}{1} = 2 \times 4 = 8$ Ans: 8																
8.	Number of green pimentoes $= \frac{30}{100} \times \frac{80}{1} = 3 \times 8 = 24 \text{ green pimentoes}$ Ans: 24 green pimentoes																
9.	$3\frac{1}{4} \text{ months} = \frac{13}{4} \text{ months}$ $\frac{13}{4-1} \times \frac{4-1}{1} = 13 \text{ weeks}$ Ans: 13 weeks																

15.	<u>Ans: C</u>
16.	<u>Ans: A triangular prism</u>
17.	Angle Y is $< 90^\circ$, so it is an acute angle. <u>Ans: An acute angle</u>

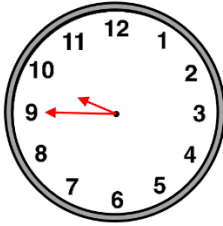
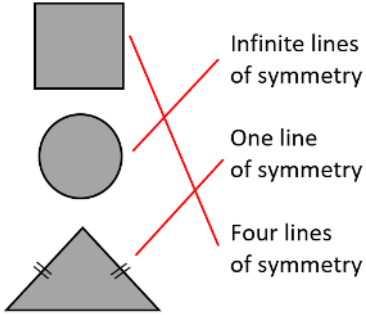
18.	Total of the 2 numbers = Mean \times Number of items = $9 \times 2 = 18$ Value of the other number = $18 - 7 = 11$ <u>Ans: 11</u>
19.	Number of pears = 10 Number of mangoes = 3 $10 - 3 = 7$ pears <u>Ans: 7 pears</u>
20.	<u>Ans: Friday</u>

SECTION 2

21.	LCM of 18, 9, 3, 6 = 18 $\frac{5}{9} = \frac{10}{18}$ $\frac{5}{6} = \frac{15}{18}$ $\frac{1}{3} = \frac{6}{18}$ $\frac{2}{18} + \frac{10}{18} + \frac{6}{18} = \frac{18}{18}$ <u>Ans: $\frac{2}{18}, \frac{5}{9}, \frac{1}{3}$</u>
22.	Use inverse operations. $33 - 13 = 20$ $20 \div 4 = 5$ <u>Ans: 5</u>

23.	3:20 p.m. expressed in 24-hour clock format = hr min 3 20 + <u>12 00</u> <u>15 20</u> Length of time Avion parked her car in the car park = hr min <u>15</u> ⁻¹ <u>20</u> ⁺⁶⁰ 14 80 - <u>8 30</u> <u>6 50</u> = 6 hr 50 min. 50 minutes is part of an hour, so the length of time Avion is charged to park her car = 7 hours Total cost to park the car = $\$7.00 \times 7 \text{ hrs} = \49.00 Change Avion received = $\$100.00 - \$49.00 = \$51.00$ <u>Ans: \$51.00</u>
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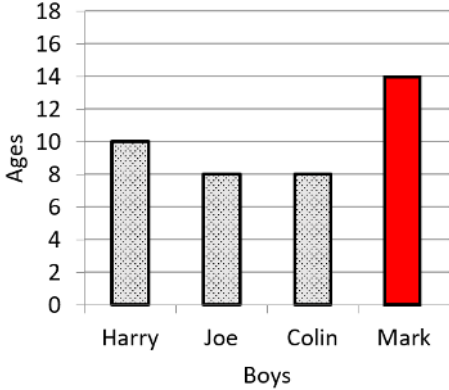
24.	<p>Percent of the chocolates each child received $= 100\% \div 8 = 12.5\%$ Decimal fraction of the chocolates each child received $= 12.5\% \div 100 = 0.125$ <u>Ans: 0.125</u></p>	28.	<p>Number of doors Denzil makes each day $= 8 + 4 = 12$ doors Number of doors they make altogether each day $= 12 + 8 = 20$ doors</p> <p>Total number of doors on 4 pallets $= 30 \times 4 = 120$ doors Number of days it takes them both to construct 4 pallets of doors $= 120 \div 20 = 6$ days <u>Ans: 6 days</u></p>
25.	<p>Discount received = Original selling price – Reduced selling price $= \\$80.00 - \\$64.00 = \\$16.00$</p> <p>Discount $= \frac{16}{80} \times \frac{100}{1} = 20\%$ <u>Ans: 20%</u></p>	29.	<p>1 000 g = 1 kg $400 \text{ g} = 400 \div 1000 = 0.4 \text{ kg}$ Weight of 1 watermelon in kg $= 3.4 \text{ kg}$ Weight of 3 watermelons in kg $= 3.4 \text{ kg} \times 3 = 10.2 \text{ kg}$</p> <p>Weight of 1 paw paw in kg $= 5500 \div 1000 = 5.5 \text{ kg}$</p> <p>Combined weight of all the items $= 10.2 \text{ kg} + 5.5 \text{ kg} = 15.7 \text{ kg}$ <u>Ans: 15.7 kg</u></p>
26.	<p>$200 \times 0.65 = 130$ $\frac{40}{100} \times \frac{300}{1} = 40 \times 3 = 120$ $130 - 120 = 10$ <u>Ans: 10</u></p>	30.	<p>Triangle A is an equilateral triangle. Perimeter of Triangle A $= \text{Side} \times 3$ $= 9 \text{ cm} \times 3 = 27 \text{ cm}$</p> <p>Triangle B is a scalene triangle. Sum of the 2 known sides $= 12 \text{ cm} + 10 \text{ cm} = 22 \text{ cm}$</p> <p>Length of the side P $= 27 \text{ cm} - 22 \text{ cm} = 5 \text{ cm}$ <u>Ans: 5 cm</u></p>
27.	<p>Michael: $X + 10 + 10$ Cora: $X + 10$ Lorraine: X</p> <p>$X + X + X + 10 + 10 + 10$ $= 150$ followers</p> <p>$3X + 30 = 150$ followers $3X = 150 - 30 = 120$ followers $X = 120 \div 3 = 40$ followers</p> <p>Number of followers Michael has $= 40 + 10 + 10 = 60$ followers <u>Ans: 60 followers</u></p>		

31.	<p>Length of the sides of each square $= \sqrt{\text{Area}} = \sqrt{4} = 2 \text{ cm}$</p> <p>Number of small squares $= \text{Length of the rectangle} \div \text{Length of the side of the square}$ $= 14 \text{ cm} \div 2 \text{ cm} = 7 \text{ small squares}$</p> <p>Ans: 7 small squares</p>
32.	<p>Twenty-five minutes to nine = 8:35 Time Tony arrived at Maracas $= \text{hr min}$</p> $\begin{array}{r} 8 \quad 35 \\ + 1 \quad 10 \\ \hline 9 \quad 45 \end{array} \quad 9:45$ <p>Ans:</p> 
33.	<p>Ans:</p>  <p>Infinite lines of symmetry</p> <p>One line of symmetry</p> <p>Four lines of symmetry</p>
34.	<p>Size of angle of segments on a compass $= 360^\circ \div 8 = 45^\circ$ Number of segments turned first $= 135^\circ \div 45^\circ = 3 \text{ segments}$ He is now facing west. $\frac{1}{2} \times 8 \text{ segments} = 4 \text{ segments}$ He is now facing east.</p> <p>Ans: East</p>

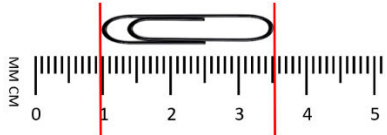
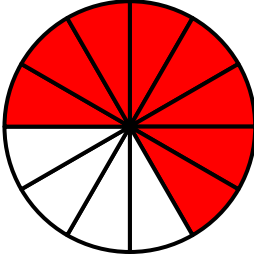
35.	<p>Method 1</p> <p>Total number of blocks $= 5 + 3 + 2 + 6 + 3 + 1 = 20 \text{ blocks}$</p> <p>Number of blocks representing the first 2 months $= 5 + 3 = 8$</p> <p>Percent of the buckets of paint sold in the first 2 months $= \frac{8}{20} \times \frac{100}{1} = 8 \times 5 = 40\%$</p> <p>Method 2</p> <p>Total number of buckets of paint sold $= (5 + 3 + 2 + 6 + 3 + 1) \times 10$ $= 20 \times 10 = 200 \text{ buckets of paint}$</p> <p>Number of buckets of paint sold in the first 2 months $= (5 + 3) \times 10$ $= 8 \times 10 = 80 \text{ buckets of paint}$</p> <p>Percent of the buckets of paint sold in the first 2 months $= \frac{80}{200} \times \frac{100}{1} = 40\%$</p> <p>Ans: 40%</p>
36.	<p>Ans: The 2 days that Kevin should sell his coconuts are Monday and Thursday because those are the days on which most coconuts were sold.</p>

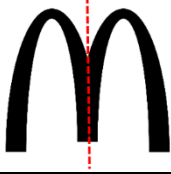
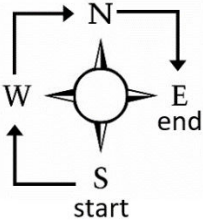
SECTION 3

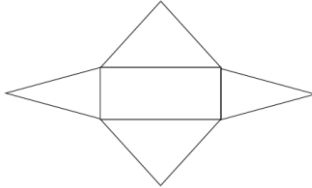















37.	<p>Store A</p> <p>Discount $= \frac{20}{100} \times \frac{600}{1} = 20 \times 6 = \\120.00</p> <p>Selling Price after discount $= \text{Selling Price} - \text{discount}$ $= \\$600.00 - \\$120.00 = \\$480.00$</p> <p>Store B</p> <p>Discount $= \frac{35}{100} \times \frac{800}{1} = 35 \times 8 = \\280.00</p> <p>Selling Price after discount $= \text{Selling Price} - \text{discount}$ $= \\$800.00 - \\$280.00 = \\$520.00$</p> <p>Store A has the cheaper price. Ans: Store A</p>						
38.	<p>1 litre = 1 000 ml $14.4 \text{ L} \times 1\,000 = 14\,400 \text{ ml}$</p> <p>Number of cups sold $= 14\,400 \div 600 \text{ ml} = 24 \text{ cups}$</p> <p>Total money $= \\$4.50 \times 24 \text{ cups} = \\108.00 Ans: \$108.00</p>						
39.	<p>(a) Ans: Cube</p> <p>(b) Ans:</p> <table border="1"> <thead> <tr> <th>Number of Faces</th> <th>Number of Vertices</th> <th>Types of Internal Angles</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">6</td> <td style="text-align: center;">8</td> <td style="text-align: center;">90° or right-angle internal angles</td> </tr> </tbody> </table>	Number of Faces	Number of Vertices	Types of Internal Angles	6	8	90° or right-angle internal angles
Number of Faces	Number of Vertices	Types of Internal Angles					
6	8	90° or right-angle internal angles					

40.	<p>(a)</p> <p>Total age of the 3 boys $= 10 + 8 + 8 = 26 \text{ years}$</p> <p>Method 1</p> <p>$\frac{1}{4}$ of the total age of the boys = 10</p> <p>$\frac{4}{4}$ of the total age of the boys $= 10 \times 4 = 40 \text{ years}$</p> <p>Mark's age = $40 - 26 = 14 \text{ years}$</p> <p>Method 2</p> <p>Total age of the boys $= 10 \div \frac{1}{4} = \frac{10}{1} \times \frac{4}{1} = 40 \text{ years}$</p> <p>Mark's age = $40 - 26 = 14 \text{ years}$ Ans:</p> <div style="text-align: center;"> <p>Ages of Boys</p>  <table border="1" style="margin: 10px auto;"> <caption>Ages of Boys</caption> <thead> <tr> <th>Boy</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Harry</td> <td>10</td> </tr> <tr> <td>Joe</td> <td>8</td> </tr> <tr> <td>Colin</td> <td>8</td> </tr> <tr> <td>Mark</td> <td>14</td> </tr> </tbody> </table> </div> <p>(b) Ans: Joe and Colin are twins because they are the same age.</p>	Boy	Age	Harry	10	Joe	8	Colin	8	Mark	14
Boy	Age										
Harry	10										
Joe	8										
Colin	8										
Mark	14										

SECTION 1

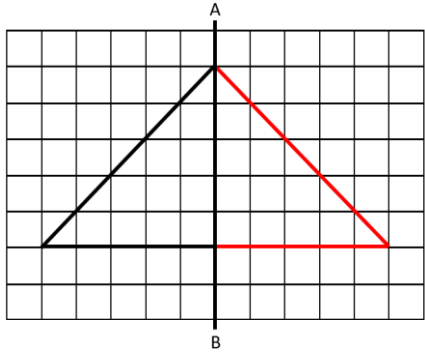
1.	Ans: Six Hundred and Seven Thousand and Nine	8.	$95 \times 2 = 190$ Ans: 190 keychains										
2.	$36 \div 6 = 6$ $5 \times 6 = 30$ Ans: 30	9.	$0.375 = \frac{375}{1000} = \frac{3}{8}$ Ans: $\frac{3}{8}$										
3.	Number of tyres on each car = $4 + 1 = 5$ tyres Total number of tyres = $9 \text{ cars} \times 5 \text{ tyres} = 45$ tyres Ans: 45 tyres	10.	Sum of green, red and blue erasers = $6 + 4 + 5 = 15$ Number of yellow erasers = $25 - 15 = 10$ Percent of yellow erasers = $\frac{10}{25} \times \frac{100}{1} = 10 \times 4 = 40\%$ Ans: 40%										
4.	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Tens</th> <th>Ones</th> <th>D.P.</th> <th>Tenths</th> <th>Hundredths</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>7</td> <td>.</td> <td>3</td> <td>8</td> </tr> </tbody> </table> <p>The hundredths digit is equal to or more than 5 so, the tenths digit increases by 1. Ans: 17.4</p>	Tens	Ones	D.P.	Tenths	Hundredths	1	7	.	3	8	11.	 <p>Method 1 $3.5 - 1 = 2.5 \text{ cm}$</p> <p>Method 2 Measure the intervals. $1 + 1 + \frac{1}{2} = 2 \frac{1}{2} \text{ cm}$ Ans: 2.5 cm or $2 \frac{1}{2} \text{ cm}$</p>
Tens	Ones	D.P.	Tenths	Hundredths									
1	7	.	3	8									
5.	$\frac{2}{3-1} \times \frac{12-4}{1} = 2 \times 4 = 8$ slices Ans: 	12.	The triangle is an equilateral triangle. Length of side AC = Perimeter $\div 3$ = $39 \text{ m} \div 3 = 13 \text{ m}$ Ans: 13 m										
6.	$\begin{array}{r} 16.75 \\ \times \quad 3 \\ \hline 50.25 \end{array}$ Ans: 50.25												
7.	Pattern: The difference between successive numbers increases by 0.1. $0.3 + 0.7 = 1.0$ $1.0 + 0.8 = 1.8$ $1.8 + 0.9 = 2.7$ $2.7 + 1.0 = 3.7$ Ans: 2.7												

13.	<p>1:25 in 24-hour format = hr min $\begin{array}{r} 12\ 00 \\ +\ 1\ 25 \\ \hline 13\ 25 \end{array}$</p> <p>1 hour = 60 minutes Time taken to complete the test = hr min $\begin{array}{r} 13^{-1}\ 25^{+60} \\ \hline 12\ 85 \\ -\ 10\ 45 \\ \hline 2\ 40 \end{array}$</p> <p>Ans: 2 hours 40 minutes</p>
14.	<p>Width = area \div length $= 18\text{ m}^2 \div 6 = 3\text{ m}$</p> <p>Ans: 3 m</p>
15.	<p>Ans:</p> 
16.	<p>A right-angle turn = $\frac{1}{4}$ turn 3 quarter turns = 3 right-angle turns</p>  <p>Ans: 3 right-angle turns</p>

17.	 <p>Ans: Rectangular based pyramid</p>												
18.	<p>Number of phone users represented $= (6 + 2.5 + 1.5 + 3) \times 4$ $= 13 \times 4 = 52$</p> <p>Icons representing iPhone users $= (70 - 52) \div 4$ $= 18 \div 4 = 4.5$</p> <p>Ans:</p> <table border="1"> <thead> <tr> <th>Brand of Phone</th> <th>Number of Students</th> </tr> </thead> <tbody> <tr> <td>Samsung</td> <td></td> </tr> <tr> <td>Nokia</td> <td></td> </tr> <tr> <td>Sony</td> <td></td> </tr> <tr> <td>iPhone</td> <td></td> </tr> <tr> <td>Huawei</td> <td></td> </tr> </tbody> </table>	Brand of Phone	Number of Students	Samsung		Nokia		Sony		iPhone		Huawei	
Brand of Phone	Number of Students												
Samsung													
Nokia													
Sony													
iPhone													
Huawei													
19.	<p>Sum of items $= \text{mean} \times \text{number of items}$ $= 9 \times 3 = 27$ $9 + 11 = 20$ Third number $= 27 - 20 = 7$</p> <p>Ans: 7</p>												
20.	<p>The most frequent number or mode is 1.5 m.</p> <p>Ans: 1.5 m</p>												

SECTION 2

21.	$23 \times 4 = 92$ chairs Ans: 92 chairs	25.	Total cost of all the pens $= \$4.25 \times 6 = \25.50 Total cost of all the copy books $= \$94.50 - \$25.50 = \$69.00$ Cost of 1 copy book $= \$69.00 \div 6 = \11.50 Ans: \$11.50
22.	<u>Method 1</u> $\frac{2}{5} = 80$ $\frac{1}{5} = 80 \div 2 = 40$ $\frac{5}{5} = 40 \times 5 = 200$ $\frac{3}{-4-1} \times \frac{200}{1} = 3 \times 50 = 150$ <u>Method 2</u> $80 \div \frac{2}{5} = \frac{80 \cdot 5}{2} = 40 \times 5 = 200$ $\frac{3}{-4-1} \times \frac{200}{1} = 3 \times 50 = 150$ Ans: 150	26.	Discount $= 20\% = \frac{20}{100}$ Discount on computer $\frac{20}{100} \times \frac{4500}{1} = \frac{4500 \cdot 20}{100} = \900 Cost after discount $= \$4500 - \$900 = \$3600$ Ans: \$3 600.00
23.	LCM of 3, 12 = 12 Flour for bread $= \frac{1}{3} = \frac{4}{12}$ Flour used for bread and cakes $= \frac{4}{12} + \frac{7}{12} = \frac{11}{12}$ Fraction of flour not used $= \frac{12}{12} - \frac{11}{12} = \frac{1}{12}$ kg Ans: $\frac{1}{12}$ kg	27.	Students travelling by car or bus $= \frac{48}{100} \times \frac{25}{1} = \frac{48 \cdot 25}{4} = 12$ students Fraction of students travelling by car $= \frac{4}{4} - \frac{1}{4} = \frac{3}{4}$ Students travelling by car $= \frac{3}{4} \times \frac{12}{1} = 3 \times 3 = 9$ students Ans: 9 students
24.	Number of boxes $= 100 \text{ biscuits} \div 4 \text{ biscuits per box}$ $= 25$ boxes Number of lollipops in total $= 25 \text{ boxes} \times 3 \text{ lollipops in each box}$ $= 75$ lollipops Ans: 75 lollipops 25 boxes		

28.	$\frac{1}{3}$ of Anthony's money = $\frac{2}{5}$ of Liam's money $\frac{1}{3}$ Anthony's money $= \frac{1}{3} \times \frac{120}{1} = \40 <u>Method 1</u> $\frac{2}{5}$ of Liam's money = \$40 $\frac{1}{5}$ of Liam's money = $\$40 \div 2 = \20 $\frac{5}{5}$ of Liam's money = $\$20 \times 5 = \100 <u>Method 2</u> $\frac{2}{5}$ of Liam's money = \$40 All of Liam's money = $\$40 \div \frac{2}{5}$ $= \frac{\$40}{1} \times \frac{5}{2} = 5 \times \$20 = \$100$ Ans: \$100.00
29.	Area of one sheet of paper = 75 cm x 40 cm = 3 000 cm ² Area of one notepad = 10 cm x 4 cm = 40 cm ² Number of notepads that can be made = $3000 \div 40 = 75$ Ans: 75 notepads
30.	1 litre = 1 000 ml $12 \frac{1}{2}$ litres = 12.5 litres 12.5 litres x 1 000 = 12 500 ml Number of cups sold = $12\,500 \text{ ml} \div 250 \text{ ml} = 50$ cups Money collected = 50 cups x \$15 = \$750 Ans: \$750.00
31.	Time Asavari arrived at school = hr min 8 30 + <u>10</u> 8 40 Time Asavari left home = hr min 8 40 - <u>37</u> 8 03 = 8:03 a.m. Ans: 8:03 a.m.
32.	Volume of each cube in stack = 2 cm x 2 cm x 2 cm = 8 cm ³ Number of cubes in stack = 4 cubes x 5 rows = 20 cubes Volume of cubes in stack = 20 cubes x 8 cm ³ = 160 cm ³ Volume still required = 216 cm ³ – 160 cm ³ = 56 cm ³ Number of cubes required = $56 \text{ cm}^3 \div 8 \text{ cm}^3 = 7$ cubes Ans: 7 cubes
33.	Ans: One pair of parallel sides with no right angles: A Opposite sides parallel with no right angles: C
34.	Ans: Isosceles Triangle 

35.	<p>The sum of values $= \text{mean} \times \text{number of values}$ $= 90 \times 5 = 450$ Sum of missing numbers $= 450 - (92 + 65 + 75)$ $= 450 - 232 = 218$</p> <p>$218 - 8 = 210$ 1st missing number $= 210 \div 2 = 105$ 2nd missing number $= 105 + 8 = 113$ <u>Ans: 105 and 113</u></p>
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36.	<p>Current modal number represented on Tuesday $5 \text{ icons} \times 5 = 25$</p> <p>Number of bicycles sold on Thursday $= 3 \text{ icons} \times 5 = 15 \text{ bicycles}$ $15 + 5 = 20 \text{ bicycles}$</p> <p>The modal number would not change as Tuesday would still have the highest frequency of sales. <u>Ans: No, the modal number would not change as Tuesday would still have the highest frequency of sales of 25 bicycles, whereas Tuesday would only have 20 after 5 is added.</u></p>
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SECTION 3

37.	<p>$\\$750.00 \div \\2.50 $= 300 \text{ pommecytheres}$ $300 \div 5 = 60 \text{ free pommecytheres}$</p> <p>Number in the crate $= \text{number sold} + \text{number free}$ $= 300 + 60 = 360 \text{ pommecytheres}$ <u>Ans: 360 pommecytheres</u></p>
38.	<p>Area of each square $= 2 \text{ cm} \times 2 \text{ cm} = 4 \text{ cm}^2$</p> <p>Total number of squares needed $= 48 \text{ cm}^2 \div 4 \text{ cm}^2 = 12 \text{ squares}$</p> <p>Number of shaded squares $= 6 + 0.5 + 0.5 = 7 \text{ squares}$</p> <p>Number Allan must colour $= 12 - 7 = 5 \text{ squares}$ <u>Ans: 5 squares</u></p>

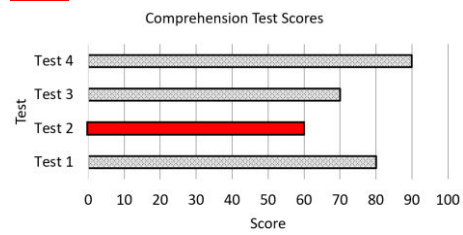
39.	<p><u>Ans:</u></p> <table border="1"> <thead> <tr> <th>Shape</th> <th>Properties</th> </tr> </thead> <tbody> <tr> <td>Rhombus</td> <td>4 sides 2 pairs of parallel lines opposite angles that are equal</td> </tr> <tr> <td>Isosceles Triangle</td> <td>3 sides only 2 sides are equal in length</td> </tr> <tr> <td>Rectangle</td> <td>all sides are perpendicular opposite sides are equal in length</td> </tr> <tr> <td>Scalene Triangle</td> <td>3 unequal sides</td> </tr> </tbody> </table>	Shape	Properties	Rhombus	4 sides 2 pairs of parallel lines opposite angles that are equal	Isosceles Triangle	3 sides only 2 sides are equal in length	Rectangle	all sides are perpendicular opposite sides are equal in length	Scalene Triangle	3 unequal sides
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Scalene Triangle	3 unequal sides										

40.

(a)

Score for Test 2

$$= \frac{2}{3} \times \frac{90}{1} = 2 \times 30 = 60$$

Ans:

(b)

Mean score

= sum of scores ÷ number of tests

$$= (80 + 60 + 70 + 90) \div 4$$

$$= 300 \div 4 = 75$$

Ans: 75

(b)

Mean score

= sum of scores ÷ number of tests

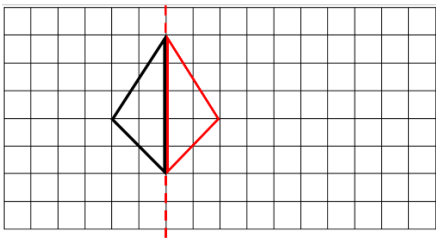
$$= (80 + 60 + 70 + 90) \div 4$$

$$= 300 \div 4 = 75$$

Ans: 75

SECTION 1

1.	$\begin{array}{r} 3\ 000 \\ 400 \\ 80 \\ + \underline{3} \\ 3\ 483 \end{array}$ <p>Ans: 3 483</p>	10.	Number of reward cards given away $= \frac{30}{100} \times \frac{180}{1} = 3 \times 18$ $= 54$ reward cards Ans: 54 reward cards
2.	$\frac{4}{5} \times \frac{200-40}{1} = 4 \times 40 = \160.00 <p>Ans: \$160.00</p>	11.	$1\ 000\text{ g} = 1\text{ kg}$ $650\text{ g} = 650 \div 1\ 000 = 0.65\text{ kg}$ Weight of the watermelon in kgs $= 4.3\text{ kg} + 0.65\text{ kg} = 4.95\text{ kg}$ Ans: 4.95 kg
3.	$78 \div 6 = 13$ Ans: 13	12.	Time shown on the clock = 5:45 Correct time $\begin{array}{r} \text{hr} \quad \text{min} \\ 5 \quad 45 \\ - \underline{18} \\ 5 \quad 27 \end{array} = 5:27$ Ans: 5:27
4.	Amount of money spent on travelling for the week $= \$14.00 \times 5 = \70.00 Ans: \$70.00	13.	Area of the square $= \text{Side} \times \text{Side}$ $= 10\text{ cm} \times 10\text{ cm} = 100\text{ cm}^2$ Method 1 Area of shaded region $= (100\text{ cm}^2 \div 4) \times 2$ $= 25\text{ cm}^2 \times 2 = 50\text{ cm}^2$ Method 2 Shaded region $= \frac{2}{4} = \frac{1}{2}$ Area of shaded region $= \frac{1}{2} \times 100\text{ cm}^2 = 50\text{ cm}^2$ Ans: 50 cm²
5.	$3\text{ blue gems} = 8\text{ red gems}$ $9 \div 3 = 3$ $9\text{ blue gems} = 3 \times 8 = 24\text{ red gems}$ Ans: 24 red gems	14.	The triangle is an isosceles triangle. Perimeter of the triangle $= (13\text{ cm} \times 2) + 18\text{ cm}$ $= 26\text{ cm} + 18\text{ cm} = 44\text{ cm}$ Ans: 44 cm
6.	Total cost of the items $= \$23.54 + \$8.65 = \$32.19$ 19c is $< 50\text{c}$, so $\$32.19$ rounded off to the nearest dollar = $\$32.00$ Ans: \$32.00	15.	Ans: A sphere
7.	$0.35 = \frac{35}{100}$ when reduced by 5 = $\frac{7}{20}$ Ans: $\frac{7}{20}$	16.	Ans: $\frac{1}{3}$ of a complete turn
8.	$71 - 9 = 62$ Ans: 62		
9.	Total fraction of cake that was given away $= 2 \times \frac{2}{5} = \frac{2}{1} \times \frac{2}{5} = \frac{4}{5}$ Fraction of the cake that remained $= \frac{5}{5} - \frac{4}{5} = \frac{1}{5}$ Ans: $\frac{1}{5}$		

17.	<p>Ans:</p> 
18.	<p>The most frequent or modal length is 7.8 m.</p> <p>Ans: 7.8 m</p>

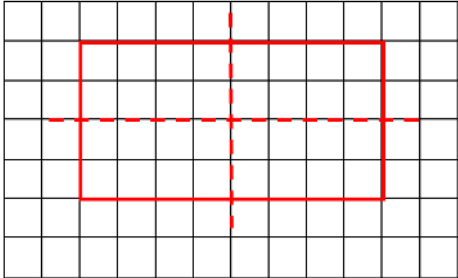
19.	<p>Ans: 60</p>
20.	<p>= Total number of virtual pets $= (1 + 4 + 3 + 2 + 3) \times 10$ $= 13 \times 10 = 130$ virtual pets</p> <p>Mean number of virtual pets each child owns $= \text{Total number of virtual pets} \div$ $\text{Number of children}$ $= 130 \div 5 = 26$ virtual pets</p> <p>Ans: 26 virtual pets</p>

SECTION 2

21.	<p>Number of marks Ishmael earned $= \frac{90}{100} \times \frac{120}{1} = 108$ marks</p> <p>Number of marks Kevin earned $= \frac{2}{3-1} \times \frac{108-36}{1} = 2 \times 36 = 72$ marks</p> <p>Ans: 72 marks</p>
22.	<p>Ans: Pizza B. To share a pizza evenly among 3 people, the number of slices must be divisible by 3. 18 is divisible by 3.</p>
23.	<p>Number of cookies in each bag $= 180 \div 6 = 30$ cookies</p> <p>Number of oatmeal cookies in each bag $= \frac{2}{5-1} \times \frac{30-6}{1} = 2 \times 6$ $= 12$ oatmeal cookies</p> <p>Ans: 12 oatmeal cookies</p>
24.	<p>Percent of students that are girls $= 100\% - 45\% = 55\%$</p> <p>Number of girls in the school $= \frac{55}{100} \times \frac{700}{1} = 55 \times 7 = 385$ girls</p> <p>Ans: 385 girls</p>

25.	<p>Age of the elder child in 2019 $= 42 \div 3 = 14$ years</p> <p>Age of the younger child in 2019 $= 14 - 5 = 9$ years</p> <p>Year in which the younger child was born $= 2019 - 9 = 2010$</p> <p>Ans: 2010</p>
26.	<p>Discount $= \\$45.00 \times 20\%$ $= \frac{45}{1} \times \frac{20-1}{100-5} = 45 \div 5 = \\9.00</p> <p>Cost after discount $= \\$45.00 - \\$9.00 = \\$36.00$</p> <p>Cost of 2 bottles $= \\$36.00 \times 2 = \\72.00</p> <p>Change received $= \\$100 - \\$72.00 = \\$28.00$</p> <p>Ans: \$28.00</p>

27.	<p><u>Method 1</u></p> $6 - 2 = 4$ $\frac{1}{5} - \frac{7}{15}$ <p>LCM of 5, 15 = 15</p> $\frac{1}{5} = \frac{3}{15}$ $\frac{3}{15} - \frac{7}{15}$ <p>Borrow a whole = $\frac{15}{15}$, add to $\frac{3}{15}$</p> $4 - 1 = 3$ $\left(\frac{15}{15} + \frac{3}{15}\right) - \frac{7}{15} = \frac{18}{15} - \frac{7}{15} = \frac{11}{15}$ $3 + \frac{11}{15} = 3\frac{11}{15}$ <p><u>Method 2</u></p> $6\frac{1}{5} = \frac{31}{5} \qquad 2\frac{7}{15} = \frac{37}{15}$ <p>LCM of 5, 15 = 15</p> $\frac{31}{5} = \frac{93}{15}$ $\frac{93}{15} - \frac{37}{15} = \frac{56}{15} = 3\frac{11}{15}$ <p>Ans: $3\frac{11}{15}$</p>										
28.	<p>Pattern</p> $1^2 = 1 \times 1 = 1$ $2^2 = 2 \times 2 = 4$ $3^2 = 3 \times 3 = 9$ $5^2 = 5 \times 5 = 25$ $7^2 = 7 \times 7 = 49$ $11^2 = 11 \times 11 = 121$ $13^2 = 13 \times 13 = 169$ <p>Ans: The number pattern is the squares of the series of prime numbers.</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>1</td> <td>4</td> <td>9</td> <td>25</td> <td>49</td> <td>121</td> <td>169</td> </tr> </table>	1	4	9	25	49	121	169			
1	4	9	25	49	121	169					
29.	<p>Decimal fraction of the piece of wood remaining</p> $= 1.0 - 0.4 = 0.6$ <p>Length of wood remaining in metres</p> $= 0.6 \times 6 \text{ m} = 3.6 \text{ m}$ <p>Length of each small piece of wood</p> $= 3.6 \text{ m} \div 3 = 1.2 \text{ m}$ <p>Ans: 1.2 m</p>										
30.	<p>1 kg = 1 000 g</p> <p>Potatoes</p> $2 \text{ kg} = 1\,000 \times 2 = 2\,000 \text{ g}$ $2\,000 \text{ g} \div 250 \text{ g} = 8$ <p>Total cost of the potatoes</p> $= \$2.50 \times 8 = \20.00 <p>Bananas</p> $= 1\frac{1}{2} \text{ kg} \times 1\,000 = \frac{3}{2} \times \frac{1\,000}{1} = \frac{3 \times 1\,000}{2} = 1\,500 \text{ g}$ $1\,500 \text{ g} \div 500 \text{ g} = 3$ <p>Total cost of the bananas</p> $= \$3.20 \times 3 = \9.60 <p>Total cost of the items</p> $= \$20.00 + \$9.60 = \$29.60$ <p>Ans: \$29.60</p>										
31.	<p>Distance has a beginning and an end so, subtract 1 from the number of light poles.</p> <p>Distance between every two light poles = Length of the street \div (Number of light poles – 1)</p> $= 60 \text{ m} \div (21 - 1)$ $= 60 \text{ m} \div 20 = 3 \text{ m}$ <p>Ans: 3 m</p>										
32.	<p>Total weight of the books</p> <table style="margin-left: 20px;"> <tr> <td>= kg</td> <td>g</td> </tr> <tr> <td>8</td> <td>900</td> </tr> <tr> <td>x</td> <td>6</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">48⁺ 5400</td> </tr> <tr> <td>53</td> <td>400</td> </tr> </table> <p>53 kg 400 g or 53.4 kg</p> <p>Ans: 53 kg 400 g or 53.4 kg</p>	= kg	g	8	900	x	6	48 ⁺ 5400		53	400
= kg	g										
8	900										
x	6										
48 ⁺ 5400											
53	400										

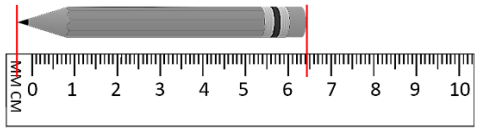
33.	<p>Number of edges in a cube = 12 Total length of all the edges $= 12 \times 7 = 84 \text{ cm}$ <u>Ans: 84 cm</u></p>
34.	<p>Area of a rectangle = Length x Width $32 \text{ cm}^2 = \text{Length} \times \text{Width}$ Pairs of factors of 32: (1, 32), (2, 16), (4, 8). The length and width dimensions that can be used on this grid: length 8 cm, width 4 cm</p> <p>A rectangle has 2 lines of symmetry.</p> <p><u>Ans:</u></p>  <p>1 cm grid</p>

35.	<p>Total number of houses built in servers 2 and 3 $= (3.5 + 2.5) \times 6$ $= 6 \times 6 = 36 \text{ houses}$ <u>Ans: 36 houses</u></p>
36.	<p>The modal toy is spinners. Number of toy cars $= 10 - 3 = 7 \text{ toy cars}$ Total number of toys $= 3 + 7 + 6 + 10 = 26 \text{ toys}$ <u>Ans: 26 toys</u></p>

SECTION 3

37.	<p>Number of nights at \$600 (Monday and Thursday) = 2 nights Cost of their stay during Monday and Thursday $= \\$600.00 \times 2 = \\$1\,200.00$</p> <p>Number of nights at \$700 (Friday and Sunday) = 3 nights Cost of their stay between Friday and Sunday $= \\$700.00 \times 3 = \\$2\,100.00$</p> <p>Total number of nights $= 2 + 3 = 5$ Total cost of the food $= \\$250.00 \times 5 = \\$1\,250.00$</p> <p>Total amount of money the Guevara family spent on hotel and food $= \\$1\,200.00 + \\$2\,100.00 + \\$1\,250.00$ $= \\$4\,550.00$ <u>Ans: \$4 550.00</u></p>	39. (a) Length of the unknown side $= 127 \text{ cm} - (27 \text{ cm} + 40 \text{ cm})$ $= 127 \text{ cm} - 67 \text{ cm} = 60 \text{ cm}$ <u>Ans: 60 cm</u> (b) <u>Ans: Scalene Triangle</u> (c) Angle Y is $> 180^\circ$ and $< 360^\circ$. Angle Y is a reflex angle. <u>Ans: A reflex angle</u>																		
38.	<p>Total length of time Miss Penny spent ironing $= \text{hr min}$ $\begin{array}{r} 5 \ 35 \\ - \ 3 \ 20 \\ \hline 2 \ 15 \end{array}$ 2 hrs 15 mins</p> <p>Length of time she took to iron the blouses = 15 minutes $\times 5$ $= 75 \text{ minutes} = 1 \text{ hr } 15 \text{ mins}$</p> <p>Length of time spent ironing the skirts $= \text{hr min}$ $\begin{array}{r} 2 \ 15 \\ - \ 1 \ 15 \\ \hline 1 \ 00 \end{array}$ 1 hr or 60 mins</p> <p>Time took to iron each skirt = 60 minutes $\div 6 = 10$ minutes <u>Ans: 10 minutes</u></p>	40. (a) <u>Ans:</u> <table border="1"> <thead> <tr> <th>Days</th> <th>Tally</th> <th>Number of Gyros</th> </tr> </thead> <tbody> <tr> <td>Monday</td> <td> I</td> <td>6</td> </tr> <tr> <td>Tuesday</td> <td> IIII</td> <td>9</td> </tr> <tr> <td>Wednesday</td> <td> </td> <td>10</td> </tr> <tr> <td>Thursday</td> <td> II</td> <td>7</td> </tr> <tr> <td>Friday</td> <td>IIII</td> <td>4</td> </tr> </tbody> </table> (b) Total number of gyros sold $= 6 + 9 + 10 + 7 + 4 = 36$ gyros Fraction of the gyros that was sold on Tuesday $= \frac{9}{36}$ when reduced by 9 = $\frac{1}{4}$ $\frac{1}{4}$ as decimal fraction = 0.25 <u>Ans: 0.25</u>	Days	Tally	Number of Gyros	Monday	I	6	Tuesday	IIII	9	Wednesday		10	Thursday	II	7	Friday	IIII	4
Days	Tally	Number of Gyros																		
Monday	I	6																		
Tuesday	IIII	9																		
Wednesday		10																		
Thursday	II	7																		
Friday	IIII	4																		

SECTION 1

1.	$\begin{array}{r} 2109 \\ + \quad 435 \\ \hline 2544 \end{array}$ <p>Ans: 2 544</p>	9.	$\begin{array}{r} 4 \times 25\text{¢} = \$1.00 \\ 1 \times 10\text{¢} = \quad .10\text{¢} \\ 1 \times 5\text{¢} = \quad .05\text{¢} \\ + \quad 4 \times 1\text{¢} = \quad .04\text{¢} \\ \hline 10 \qquad \quad \$1.19 \end{array}$ <p>Ans: 10 coins</p>										
2.	$\begin{array}{r} 7.85 \\ - 5.64 \\ \hline 2.21 \end{array}$ <p>Ans: 2.21</p>	10.	<p>2017 – 1982 = 35 years</p> <p>Ans: 35 years</p>										
3.	$35\% = \frac{35}{100}$ $\frac{35}{100} \times \frac{60}{1} = \frac{7}{20} \times \frac{60}{1}$ $= 7 \times 3 = 21$ <p>Ans: 21</p>	11.	<p>Area of the garden = Length x Width = 12 m x 8 m = 96 m²</p> <p>Ans: 96 m²</p>										
4.	<p>$\frac{56}{64}$ when reduced by 8 = $\frac{7}{8}$</p> <p>Ans: $\frac{7}{8}$</p>	12.	Ans: B										
5.	<p>Percent</p> $= \frac{15}{60} \times \frac{100}{1} = \frac{1}{4} \times \frac{100}{1} = 25\%$ <p>Ans: 25%</p>	13.	<p>60 minutes = 1 hour 240 minutes = 240 ÷ 60 = 4 hours</p> <p>Ans: 4 hours</p>										
6.	<p>This pattern consists of descending, odd, square numbers.</p> $81 = 9^2$ $49 = 7^2$ $25 = 5^2$ $9 = 3^2$ <p>Ans: 9</p>	14.	 <p>The tip of the pencil is before the 0 cm marker. Length of pencil > 6.5 cm. Rounded to the nearest cm = 7 cm</p> <p>Ans: 7 cm</p>										
7.	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Tens</th> <th>Ones</th> <th>D.P.</th> <th>Tenths</th> <th>Hundredths</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>3</td> <td>.</td> <td>2</td> <td>5</td> </tr> </tbody> </table> <p>The hundredths digit is equal to 5 so the tenths digit increases by 1.</p> <p>Ans: 83.3</p>	Tens	Ones	D.P.	Tenths	Hundredths	8	3	.	2	5	15.	Ans: AB
Tens	Ones	D.P.	Tenths	Hundredths									
8	3	.	2	5									
8.	<p>1 journal = 30 pages 8 journals = 30 pages x 8 = 240 pages</p> <p>Ans: 240 pages</p>	16.	Ans: A										
		17.	Ans: Cylinder										
		18.	<p>Friday = 7 children Thursday = 2 children 7 – 2 = 5</p> <p>Ans: 5 children</p>										

19.	<p>The sum of items = mean x number of items = $5 \frac{1}{3} \times 9 = \frac{16}{3} \times \frac{9 \cdot 3}{1} = 16 \times 3 = 48$ <u>Ans: 48</u></p>
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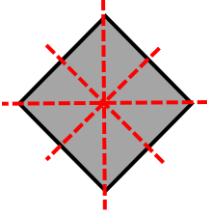
20.	<p>The most frequent fast food restaurant or mode is Pizza Hut. <u>Ans: Pizza Hut</u></p>
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SECTION 2

21.	<p>$\frac{2}{10} = \frac{20}{100}$ $\frac{4}{100} + \frac{20}{100} = \frac{24}{100} = 0.24$ <u>Ans: 0.24</u></p>
22.	<p>Use inverse operations $62 - 8 = 54$ $54 \div 6 = 9$ <u>Ans: 9</u></p>
23.	<p>The auditorium can seat = 21 rows x 15 chairs = 315 people Extra seats needed = $450 - 315 = 135$ seats Extra rows needed = $135 \text{ seats} \div 15 \text{ chairs} = 9$ rows <u>Ans: 9 rows</u></p>
24.	<p>Number of cucumbers = $\frac{1}{31} \times \frac{150 \cdot 50}{1} = 50$ cucumbers Number of sweet peppers = $\frac{10}{100} \times \frac{150}{1} = 15$ sweet peppers Number of potatoes = $150 - (50 + 15)$ = $150 - 65 = 85$ <u>Ans: 85 potatoes</u></p>
25.	<p style="text-align: center;"> $\begin{array}{r} 248 \\ 193 \\ + 34 \\ \hline 475 \end{array}$ </p> <p><u>Ans: 475</u></p>

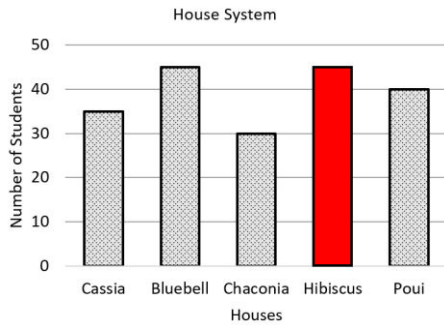
26.	<p>1 pattern = 2 green marbles 9 patterns = 9×2 = 18 green marbles 1 pattern = $3 + 2 + 4 = 9$ marbles $\frac{2}{3}$ pattern = $\frac{2}{3} \times \frac{9 \cdot 3}{1} = 6$ marbles</p> <table border="1" style="margin: 0 auto;"> <tr> <td style="text-align: center;">blue</td> <td style="text-align: center;">green</td> <td style="text-align: center;">red</td> </tr> <tr> <td style="text-align: center;">● ● ●</td> <td style="text-align: center;">○ ○</td> <td style="text-align: center;">● ● ● ●</td> </tr> <tr> <td style="text-align: center;">1 2 3</td> <td style="text-align: center;">4 5</td> <td style="text-align: center;">6</td> </tr> </table> <p>$\frac{2}{3}$ of a pattern = 2 green marbles Total number of green marbles = $18 + 2 = 20$ green marbles <u>Ans: 20 green marbles</u></p>	blue	green	red	● ● ●	○ ○	● ● ● ●	1 2 3	4 5	6
blue	green	red								
● ● ●	○ ○	● ● ● ●								
1 2 3	4 5	6								
27.	<p>Rent for 4 days = $\\$525 \times 4 = \\$2\,100$ Total = Rent + Groceries = $\\$2\,100 + \\$785 = \\$2\,885$ <u>Ans: \$2 885.00</u></p>									
28.	<p>Richard's share = $2400 \div 2 = \\$1200$ Remainder = $\\$2400 - \\$1200 = \\$1200$ $\\$1\,200 \div 3 = \\400 Stacy = $\\$400 \times 2 = \\800 Sarah = $\\$400$ <u>Ans:</u> Richard: <u>\$1 200.00</u> Stacy: <u>\$800.00</u> Sarah: <u>\$400.00</u></p>									
29.	<p>1 litre = 1 000 ml Number of 25 ml cups = $1000 \text{ ml} \div 25 \text{ ml} = 40$ cups <u>Ans: 40 cups</u></p>									

30.	<p>1 kg = 1 000 g</p> <p>Flour remaining after making bread</p> $= \begin{array}{r} \text{Kg} \quad \text{g} \\ 45 \overset{-1}{0}00 \overset{+1000}{} \\ \hline 44 \quad 1000 \\ - \quad 4 \quad 730 \\ \hline 40 \quad 270 \end{array}$ <p>Flour remaining after bag fell</p> $= 40 \text{ kg } 270 \text{ g} \div 2 = 20 \text{ kg } 135 \text{ g}$ <p>Ans: 20 kg 135 g</p>
31.	<p>Ans: To calculate the total cost of the chain link required, Adonis must first calculate the length of chain link to buy then multiply it by \$35 per metre.</p> <p>To calculate the length, Adonis needs to determine the perimeter of the square piece of land.</p> <p>Perimeter of a square = side x 4.</p> <p>Perimeter of the land = 11 m x 4 = 44 m.</p> <p>Total cost of the chain link required = 44 m x \$35 = \$1 540</p>
32.	<p>Nikhil took $1\frac{1}{4}$ hours = 1 hour 15 minutes</p> <p>Length of time Ananya took to complete the test</p> $= \begin{array}{r} \text{hr} \quad \text{min} \\ 1 \quad 15 \\ - \quad \quad 10 \\ \hline 1 \quad 05 \end{array} = 1 \text{ hour } 5 \text{ minutes}$ <p>Time Ananya completed the test</p> $= \begin{array}{r} \text{hr} \quad \text{min} \\ 8 \quad 30 \\ + \quad 1 \quad 05 \\ \hline 9 \quad 35 \end{array} = 9:35 \text{ a.m.}$ <p>Ans: 9:35 a.m.</p>

33.	<p>Ans:</p> 
34.	<p>Ans: The shape is a cone with 1 curved face, 1 flat circular face, 1 curved edge and 1 vertex.</p>
35.	<p>Method 1</p> <p>Number of students who wrote weekly tests</p> $= (4.5 + 5.5 + 2.5) \times 6$ $= 12.5 \times 6 = 75 \text{ students}$ <p>Method 2</p> <p>Mathematics</p> $= 4\frac{1}{2} \text{ figures} \times 6 = \frac{9}{2} \times \frac{6}{1} \times \frac{3}{1}$ $= 9 \times 3 = 27 \text{ students}$ <p>Language Arts</p> $= 5\frac{1}{2} \text{ figures} \times 6 = \frac{11}{2} \times \frac{6}{1} \times \frac{3}{1}$ $= 11 \times 3 = 33 \text{ students}$ <p>Writing</p> $= 2\frac{1}{2} \text{ figures} \times 6 = \frac{5}{2} \times \frac{6}{1} \times \frac{3}{1}$ $= 5 \times 3 = 15 \text{ students}$ <p>Number of students who wrote weekly tests</p> $= 27 + 33 + 15 = 75$ <p>Ans: 75 students</p>

36. Sum of values
 = mean \times number of values
 Sum of values
 = 39×5 houses = 195 students
 Number in Hibiscus House
 = $195 - (35 + 45 + 30 + 40)$
 = $195 - 150 = 45$

Ans:

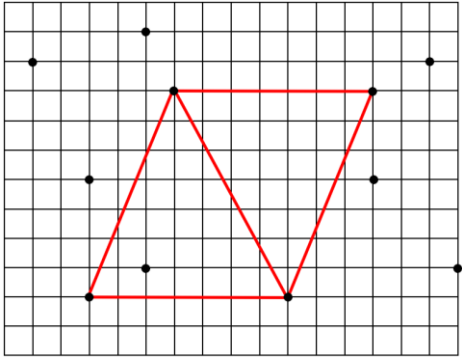
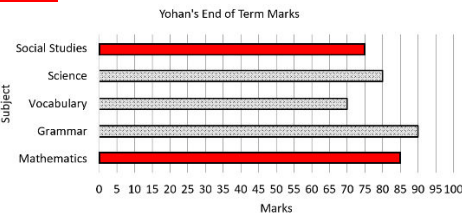


SECTION 3

37. Number of passengers seated in 2-seater benches
 = $\frac{3}{5-1} \times \frac{400-80}{1} = 3 \times 80 = 240$
- Number of passengers remaining
 = $400 - 240 = 160$ passengers
- $0.75 = \frac{75}{100}$
- Number of passengers seated in 3-seater benches
 = $\frac{75-3}{100-4} \times \frac{160}{1} = \frac{3}{4-1} \times \frac{160}{1} = 3 \times 40 = 120$
- Number of passengers standing
 = $160 - 120 = 40$ passengers

Ans: 40 passengers

38. Total length of class time
 $= 40 \text{ minutes} \times 7 \text{ classes}$
 $= 280 \text{ minutes}$
- Total length of class time and recess
 $= 280 \text{ minutes} + 30 \text{ minutes}$
 $= 310 \text{ minutes}$
- 2:30 p.m. in 24-hour format
 $= 12:00$
 $+ \underline{2:30}$
 $\underline{14:30} \text{ hours}$
- Length of time between the beginning and end of school
 $= \text{hr min}$
 $14 \quad 30$
 $- \underline{8 \quad 30}$
 $\underline{6 \quad 00} = 6 \text{ hours}$
- $310 \text{ minutes} \div 60 \text{ minutes}$
 $= 5 \text{ hrs } 10 \text{ min}$
- Length of time the lunch period lasts
 $= \text{hr min}$
 $6 \quad 00$
 $- \underline{5 \quad 10}$
 $\underline{\quad 50} = 50 \text{ minutes}$
- OR
- $6 \text{ hours} = 6 \times 60 = 360 \text{ minutes}$
 Length of time the lunch period lasts
 $= 360 - 310 = 50 \text{ minutes}$
Ans: 50 minutes

39. **Ans:**
- 
40. Sum of marks for science, vocabulary and grammar
 $= 80 + 70 + 90 = 240$
- Number of marks for both mathematics and social studies
 $= 400 - 240 = 160$
- Marks in social studies
 $= (160 - 10) \div 2$
 $= 150 \div 2 = 75$
- Marks in mathematics
 $= 75 + 10 = 85$
- Ans:**
- 
- | Subject | Marks |
|----------------|-------|
| Social Studies | 75 |
| Science | 80 |
| Vocabulary | 70 |
| Grammar | 90 |
| Mathematics | 85 |