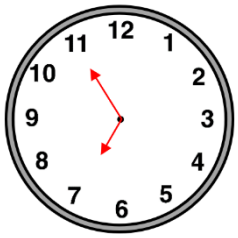
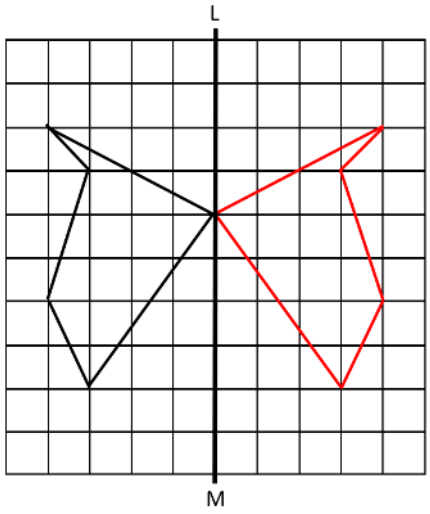
SECTION 1

1.	**Ans: 15 307**
2.	Selling price = 25 hairbrushes x $9.00 = $225.00 Profit = Selling Price – Cost Price = $225.00 – $175.00 = $50.00 **Ans: $50.00**
3.	$\frac{\cancel{64}\ 8}{\cancel{80}\ 10} \times \frac{100}{1} = \frac{8}{\cancel{10}} \times \frac{\cancel{100}}{1}$ = 8 x 10 = 80% **Ans: 80%**
4.	Total cost of the items = $11.30 + $12.85 = $24.15 15¢ is < 50¢, so $24.15 rounded off to the nearest dollar = $24.00 **Ans: $24.00**
5.	(7 x 8) + 2 = 56 + 2 = 58 $8\frac{2}{7} = \frac{58}{7}$ **Ans:** $\frac{58}{7}$
6.	40¢ – 25¢ = 15¢ 15¢ – 10¢ = 5¢ 25¢ + 10¢ + 5¢ = 40¢ **Ans: 25¢, 10¢, 5¢ coin pieces**
7.	Number of chocolate cupcakes = (8 x 2) + 6 = 16 + 6 = 22 chocolate cupcakes **Ans: 22 chocolate cupcakes**
8.	Percent of hair ties Cintra kept = 100% – 60% = 40% 40% = $\frac{\cancel{40}}{\cancel{100}}$ = 0.4 **Ans: 0.4**
9.	$3 \times \frac{2}{9} = \frac{\cancel{3}\ 1}{1} \times \frac{2}{\cancel{9}\ 3} = \frac{2}{3}$ **Ans:** $\frac{2}{3}$

10.	2 x 10 000 = 20 000 6 x 1 000 = 6 000 4 x 10 = 40 5 x 1 = 5 20 000 6 000 40 + 5 26 045 **Ans: 26 045**
11.	Average weight of 1 lamp in kg = 42 kg ÷ 6 = 7 kg 1 kg = 1 000 grams Weight of 1 lamp in grams = 7 kg x 1 000 = 7 000 g **Ans: 7 000 g**
12.	**Ans:** 
13.	1 hour = 60 minutes 3 hours = 3 x 60 = 180 minutes $\frac{\cancel{90}}{\cancel{100}} \times \frac{\cancel{180}}{1}$ = 9 x 18 = 162 minutes **Ans: 162 minutes**
14.	Area = Side x Side = 12 cm x 12 cm = 144 cm^2 **Ans: 144 cm^2**
15.	Angle R is < 90° = acute angle **Ans: An acute angle**
16.	**Ans: Lines CD and GH**

17.	**Ans:** 

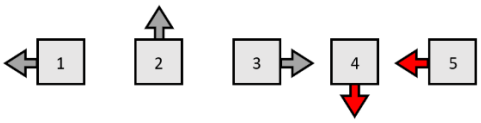
18.	Total = Mean x number of numbers = 26 x 8 = 208 **Ans: 208**
19.	YouTube = 14 Kindle = 9 14 – 9 = 5 students **Ans: 5 students**
20.	Total number of curtain panels sold during the week = (8 + 5 + 6 + 4 + 7) x 10 = 30 x 10 = 300 curtain panels **Ans: 300 curtain panels**

SECTION 2

21.	Number of eggs needed for 1 cake = 6 eggs ÷ 2 cakes = 3 eggs Number of cakes = 24 eggs ÷ 3 = 8 cakes **Ans: 8 cakes**
22.	15 + 8 = 23 **Ans: (86 x 15) + (86 x 8) is the same as 86 x 23, so the answer would be incorrect.**
23.	Number of high heels $= \frac{1}{\cancel{4}1} \times \frac{\cancel{60}\ 15}{1}$ = 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 x 3 = $26.25 Cost of the flour = $5.75 x 2 kg = $11.50 Total cost of the items = $26.25 + $11.50 = $37.75 **Ans: $37.75**
25.	Discount = 20% x Cost of a cricket bat $= \frac{20}{\cancel{100}} \times \frac{\cancel{400}}{1}$ = 20 x 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 x 4 = $1 280.00 **Ans: $1 280.00**

26.	$\sqrt[3]{216}$ 216 ÷ 2 = 108 108 ÷ 2 = 54 54 ÷ 2 = 27 27 ÷ 3 = 9 9 ÷ 3 = 3 3 ÷ 3 = 1 (2 x 2 x 2) x (3 x 3 x 3) = 216 $\sqrt[3]{216}$ = 2 x 3 = 6 7^2 = 7 x 7 = 49 49 + 6 = 55 **Ans: 55**
27.	175 x 0.08 14.00 **Ans: 14**
28.	66 x 37 = 2442 2442 – 312 = 2130 **Ans: 2 130**
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 = $\frac{4}{\cancel{5}\ 1}$ x $\frac{\cancel{80}\ 16}{1}$ = 4 x 16 = 64 minutes 64 minutes = 1 hour 4 minutes Time Hema completed the exam = hr min 9 30 + 1 04 10 34 = 10:34 a.m. **Ans: 10:34 a.m.**

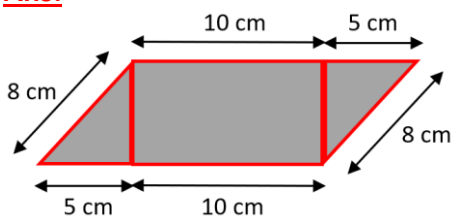
30.	Miss Mindy's: 1 kg of peas = $5.20 Grocer Green: 1 kg = 1000 g 1 000 g ÷ 250 g = 4 1 kg of peas = $1.40 x 4 = $5.60 Pop's Shop: 1 kg = 1000 g 1 000 g ÷ 500 g = 2 1 kg of peas = $2.70 x 2 = $5.40 **Ans: Grocer Green**
31.	Cost of the journey = $3.00 x 50 = $150.00 Amount of money each person paid = $150.00 ÷ 2 = $75.00 **Ans: $75.00**
32.	62.7 kg – 6.1 kg = 56.6 kg Sam's weight = 56.6 kg ÷ 2 = 28.3 kg Fred weight = 28.3 + 6.1 = 34.4 kg **Ans:** Fred: **34.4 kg** Sam: **28.3 kg**
33.	The box is a cuboid. **Ans:** Faces: **6** Vertices: **8**
34.	**Ans:** 
35.	Total number of marks scored = Mean mark x nos. of subjects = 91 x 4 = 364 Sum of marks scored in 3 subjects = 100 + 93 + 79 = 272 Science mark = 364 – 272 = 92 **Ans: 92**

36.	Total number of boxes of thumb tacks = (7 + 5 + 3 + 1 + 5) x 5 = 21 x 5 = 105 boxes of thumb tacks <u>Method 1</u> Profit made from the sale of 1 box of thumb tacks = Selling price – Cost price = $7.00 – $4.00 = $3.00 Profit made from the sale of thumb tacks that week = Profit made from the sale of 1 box of thumb tacks x number of boxes sold that week = $3.00 x 105 boxes = $315.00

	<u>Method 2</u> Cost price of all the boxes = 105 x $4.00 = $420.00 Selling price of all the boxes = 105 x $7.00 = $735.00 Profit made from the sale of thumb tacks that week = Selling price – Cost price = $735.00 – $420.00 = $315.00 **<u>Ans: $315.00</u>**

SECTION 3

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

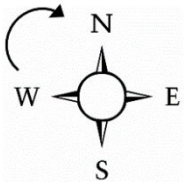
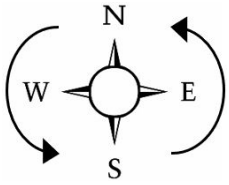
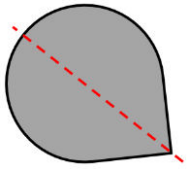
39.	(a) **<u>Ans:</u>**  (b) Perimeter = 10 cm + 10 cm + 8 cm + 8 cm + 5 cm + 5 cm = 46 cm **<u>Ans: 46 cm</u>**

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 $= \frac{\cancel{4}\ 1}{\cancel{32}\ 8} \times \frac{100}{1} = 12\frac{1}{2}\%$ Method 2 Total number of pairs of sneakers sold = (7 + 6 + 2 + 4 + 5 + 8) x 10 = 32 x 10 = 320 pairs of sneakers Number of pairs of sneakers sold on Thursday = 4 x 10 = 40 pairs of sneakers Percent of the pairs of sneakers that were sold on Thursday $= \frac{\cancel{40}\ 1}{\cancel{320}\ 8} \times \frac{100}{1} = 12\frac{1}{2}\%$ **Ans:** $12\frac{1}{2}\%$

	(b) Method 1 Number of pairs of socks handed out that week = Number of icons x 3 = 96 pairs of socks Method 2 320 pairs of sneakers ÷ 10 = 32 Number of pairs of socks handed out that week = 32 x 3 = 96 pairs of socks **Ans: 96 pairs of socks**

SECTION 1

1.	**Ans: 9**
2.	$8 \overline{)\,1\,6\,6\,4}$ → 0 2 0 8 **Ans: 208**
3.	75% = $\frac{75}{100}$ when reduced by 25 = $\frac{3}{4}$ **Ans: $\frac{3}{4}$**
4.	<table><tr><th>Thousands</th><th>Hundreds</th><th>Tens</th><th>Ones</th></tr><tr><td>2</td><td>2</td><td>9</td><td>5</td></tr></table> Hundreds digit is less than 5 so, the thousands digit remains the same. **Ans: 2 000**
5.	7.00 – 3.85 3.15 **Ans: 3.15**
6.	7^2 = 7 x 7 = 49 49 – 23 = 26 **Ans: 26**
7.	$\frac{1}{6}$ = 23 $\frac{6}{6}$ = 23 x 6 = 138 **Ans: 138**
8.	Use inverse operations. 6 x 7 = 42 42 – 6 = 36 **Ans: 36**
9.	1 x 25¢ = 25¢ 2 x 10¢ = 20¢ 25¢ + 20 ¢ = 45¢ **Ans: 3 coins**
10.	Method 1 $\frac{2}{3}$ = $12.50 $\frac{1}{3}$ = $12.50 ÷ 2 = $6.25 $\frac{3}{3}$ = $6.25 x 3 = $18.75 Method 2 $12.50 ÷ $\frac{2}{3}$ = $\frac{\cancel{12.50}\ 6.25}{1}$ x $\frac{3}{\cancel{2}\ 1}$ = $6.25 x 3 = $18.75 **Ans: $18.75**
11.	1 kg = 1000 g 5.6 kg x 1000 = 5 600 g **Ans: 5 600 g**
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**
13.	Length of side = $\sqrt{\text{Area}}$ = $\sqrt{121}$ cm² = 11 cm **Ans: 11 cm**
14.	Hamza took less time and finished first. **Ans: Hamza**

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

17.	**Ans: B**
18.	Goals scored by teams A, B, D and E = (3 + 5 + 2 + 4) x 2 = 14 x 2 = 28 Goals scored by team C = 38 – 28 = 10 **Ans: 10**
19.	The sum of items = Mean x Number of items = 42 x 6 = 252 **Ans: 252**
20.	The most frequent shoe size or mode is 4. **Ans: 4**

SECTION 2

21.	$\frac{3}{5} + \frac{3}{10}$ $\frac{3}{5} = \frac{6}{10}$ 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: $\frac{1}{10}$**
22.	475 ÷ 19 = 25 students **Ans: 25 students**
23.	First number = 9 x 2 = 18 Second number = sum – 18 = 54 – 18 = 36 **Ans: 18 and 36**

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

26.	Use inverse operations. 188 – 67 = 121 (N represents the number) $N^2 = 121$ $N = \sqrt{121} = 11$ **Ans: 11**
27.	Profit $= \frac{\cancel{25}\ 1}{\cancel{100}\ 4} \times \frac{\$1260}{1} = \$1260 \div 4 = \$315$ Selling price of bicycle = \$1 260 + \$315 = \$ 1 575 **Ans: \$1 575.00**
28.	14 ÷ 7 = 2 14 limes are sold for = \$20 x 2 = \$40 Cost of apples = Total cost – cost of limes = \$120 – \$40 = \$80 \$80 ÷ 20 apples = \$4 per apple \$20 ÷ \$4 = 5 apples **Ans: 5 apples**
29.	Area of square = side x side = 6 cm x 6 cm = 36 cm^2 Area of rectangle = length x breadth = 12 cm x 3 cm = 36 cm^2 **Ans: 36 cm^2** **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.

30.	Weight of 2 apples = 600 g x 2 = 1 200 g 1 000 g = 1 kg Weight of apples in kg 1 200 g ÷ 1000 = 1.2 kg Weight of 2 paw paws = 3.3 kg x 2 = 6.6 kg Total weight = 6.6 kg + 1.2 kg = 7.8 kg **Ans: 7.8 kg**
31.	$\frac{3}{4}$ hr = 45 mins Length of both halves = 45 mins x 2 = 90 mins Total length of concert = 90 mins + 20 mins = 110 mins 110 mins = 1 hr 50 mins Time concert ended = hr min 8 50 + 1 50 9^{+1} 100^{-60} 10 40 10:40 p.m. **Ans: 10:40 p.m.**
32.	1 km = 1000 m Day 2 = 3.75 km = 3 km 750 m Total distance covered = sum of the 3 days km m Day 1 2 250 Day 2 3 750 Day 3 + 3 500 8^{+1} ~~1~~500 9 500 **Ans: 9 km 500 m**
33.	**Ans: A half turn**

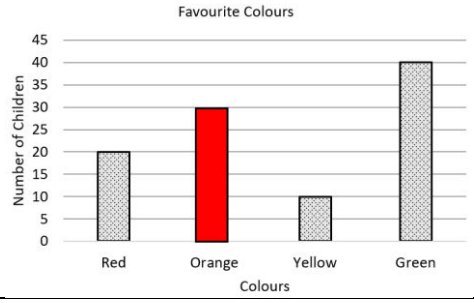
34.	**Ans: It is a cube with 12 edges, 6 faces and 8 vertices.**
35.	Car = 14 Bus = 12 Number of students who walk and cycle = 40 – (14 + 12) = 40 – 26 = 14 students Walk and cycle separately = 14 ÷ 2 = 7 students **Ans:** Car: 𝍸 𝍸 IIII Bus: 𝍸 𝍸 II Walk: 𝍸 II Cycle: 𝍸 II

36.	Total number of pictures = (2 + 5 + 3 + 2) x 8 = 12 x 8 = 96 pictures Mean number of pictures stored by each person = 96 ÷ 4 = 24 pictures **Ans: 24 pictures**

SECTION 3

37.	Number of mangoes Dwayne picks = 300 + 120 = 420 mangoes Number of boxes Alex uses = 300 ÷ 50 = 6 boxes Number of boxes Dwayne uses = 420 ÷ 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 km x 0.6 = 54 km Distance Raj ran before he stopped for lunch on Sunday = $\frac{5}{\cancel{9}\ 1}$ x $\frac{\cancel{54}\ 6}{1}$ = 5 x 6 = 30 km **Ans: 30 km**

39.	**Ans:** Quadrilateral: Regular Shape, Irregular Shape Pentagon: Regular Shape, Irregular Shape **Hexagon**: Regular Shape, Irregular Shape **Octagon**: Regular Shape, Irregular Shape

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 green = $\frac{40}{100}$ = 40% Method 2 Percent of children who favoured green = $\frac{40}{\cancel{100}} \times \frac{\cancel{100}}{1}$ = 40% **Ans: 40%**

SECTION 1

1.

Hundreds	Tens	Ones
8	4	8
8	5	7
9	6	0
8	5	5

Ans: 960, 857, 855, 848

2.

Down payment
$= \frac{\cancel{25}\ 1}{\cancel{100}\ 4} \times \frac{8000}{1}$ = \$8000 ÷ 4 = \$2000
Ans: \$2 000.00

3.

$\frac{3}{8} \times \frac{100}{1} = \frac{300}{8} = 37\frac{1}{2}\%$
Ans: $37\frac{1}{2}\%$

4.

7 x 10¢ = 70¢
4 x 5¢ = 20¢
70¢ + 20¢ = 90¢
Ans: 90¢

5.

3.00
– 0.16
2.84
Ans: 2.84

6.

Selling price > cost price
Ans: Profit

7.

$\frac{2}{\cancel{5}\ 1} \times \frac{\cancel{20}\ 4}{1}$ = 2 x 4 = 8
Ans: 8

8.

Number of green pimentoes
$= \frac{\cancel{30}}{\cancel{100}} \times \frac{\cancel{80}}{1}$ = 3 x 8 = 24 green pimentoes
Ans: 24 green pimentoes

9.

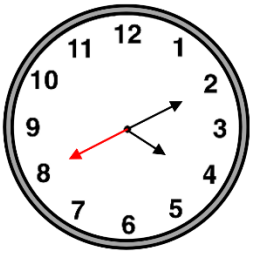
$3\frac{1}{4}$ months = $\frac{13}{4}$ months
$\frac{13}{\cancel{4}\ 1} \times \frac{\cancel{4}\ 1}{1}$ = 13 weeks
Ans: 13 weeks

10.

8 + 28 = 36
$\sqrt{36}$ = 6
Ans: 6

11.

$\frac{1}{4}$ x 60 minutes = 15 minutes
2 complete $\frac{1}{4}$ turns
= 15 minutes x 2 = 30 minutes
New position of the minute hand
= 10 minutes + 30 minutes
= 40 minutes
Ans:



12.

1 000 g = 1 kg
330 g = 330 ÷ 1 000 = 0.33 kg
Ans: 0.33 kg

13.

Method 1
Total length of 2 sides of the square
= Perimeter ÷ 2
= 48 cm ÷ 2 = 24 cm

Method 2
Length of 1 side of a square
= Perimeter ÷ 4
= 48 cm ÷ 4 = 12 cm

Total length of 2 sides of the square
= 12 cm x 2 = 24 cm
Ans: 24 cm

14.

Number of cubes in the object
= L x W x H
= 4 x 2 x 4 = 32 cubes

Volume of the object
= 32 cubes x 8 cm^3 = 256 cm^3
Ans: 256 cm^3

15.	**Ans: C**
16.	**Ans: A triangular prism**
17.	Angle Y is < 90°, so it is an acute angle. **Ans: An acute angle**

18.	Total of the 2 numbers = Mean x Number of items = 9 x 2 = 18 Value of the other number = 18 – 7 = 11 **Ans: 11**
19.	Number of pears = 10 Number of mangoes = 3 10 – 3 = 7 pears **Ans: 7 pears**
20.	**Ans: Friday**

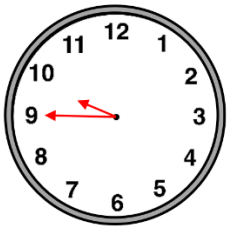
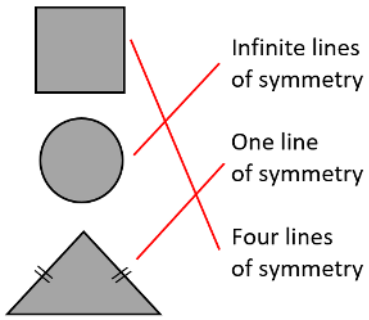
SECTION 2

21.	LCM of 18, 9, 3, 6 = 18 $\frac{5}{9} = \frac{10}{18}$ $\frac{5}{6} = \frac{15}{18}$ $\frac{1}{3} = \frac{6}{18}$ $\frac{2}{18} + \frac{10}{18} + \frac{6}{18} = \frac{18}{18}$ **Ans:** $\frac{2}{18}, \frac{5}{9}, \frac{1}{3}$
22.	Use inverse operations. 33 – 13 = 20 20 ÷ 4 = 5 **Ans: 5**

23.	3:20 p.m. expressed in 24-hour clock format = hr min 3 20 + 12 00 15 20 Length of time Avion parked her car in the car park = hr min 15^{-1} 20^{+60} 14 80 – 8 30 6 50 = 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 x 7 hrs = $49.00 Change Avion received = $100.00 – $49.00 = $51.00 **Ans: $51.00**

24.	Percent of the chocolates each child received = 100% ÷ 8 = 12.5% Decimal fraction of the chocolates each child received = 12.5% ÷ 100 = 0.125 **Ans: 0.125**
25.	Discount received = Original selling price– Reduced selling price = $80.00 – $64.00 = $16.00 Discount = $\frac{\cancel{16}\ 1}{\cancel{80}\ 5} \times \frac{100}{1}$ = 20% **Ans: 20%**
26.	200 x 0.65 = 130 $\frac{40}{\cancel{100}} \times \frac{\cancel{300}}{1}$ = 40 x 3 = 120 130 – 120 = 10 **Ans: 10**
27.	Michael: X + 10 + 10 Cora: X + 10 Lorraine: X X + X + X + 10 + 10 + 10 = 150 followers 3 X + 30 = 150 followers 3 X = 150 – 30 = 120 followers X = 120 ÷ 3 = 40 followers Number of followers Michael has = 40 + 10 + 10 = 60 followers **Ans: 60 followers**

28.	Number of doors Denzil makes each day = 8 + 4 = 12 doors Number of doors they make altogether each day = 12 + 8 = 20 doors Total number of doors on 4 pallets = 30 x 4 = 120 doors Number of days it takes them both to construct 4 pallets of doors = 120 ÷ 20 = 6 days **Ans: 6 days**
29.	1 000 g = 1 kg 400 g = 400 ÷ 1000 = 0.4 kg Weight of 1 watermelon in kg = 3.4 kg Weight of 3 watermelons in kg = 3.4 kg x 3 = 10.2 kg Weight of 1 paw paw in kg = 5 500 ÷ 1000 = 5.5 kg Combined weight of all the items = 10.2 kg + 5.5 kg = 15.7 kg **Ans: 15.7 kg**
30.	Triangle A is an equilateral triangle. Perimeter of Triangle A = Side x 3 = 9 cm x 3 = 27 cm Triangle B is a scalene triangle. Sum of the 2 known sides = 12 cm + 10 cm = 22 cm Length of the side P = 27 cm – 22 cm = 5 cm **Ans: 5 cm**

31.	Length of the sides of each square = $\sqrt{\text{Area}}$ = $\sqrt{4}$ = 2 cm Number of small squares = Length of the rectangle ÷ Length of the side of the square = 14 cm ÷ 2 cm = 7 small squares **Ans: 7 small squares**
32.	Twenty-five minutes to nine = 8:35 Time Tony arrived at Maracas = hr min 8 35 + 1 10 9 45 9:45 **Ans:** 
33.	**Ans:** 
34.	Size of angle of segments on a compass = 360° ÷ 8 = 45° Number of segments turned first = 135° ÷ 45° = 3 segments He is now facing west. $\frac{1}{2}$ x 8 segments = 4 segments He is now facing east. **Ans: East**

35.	Method 1 Total number of blocks = 5 + 3 + 2 + 6 + 3 + 1= 20 blocks Number of blocks representing the first 2 months = 5 + 3 = 8 Percent of the buckets of paint sold in the first 2 months = $\frac{8}{\cancel{20}\ 1}$ x $\frac{\cancel{100}\ 5}{1}$ = 8 x 5 = 40% Method 2 Total number of buckets of paint sold = (5 + 3 + 2 + 6 + 3 + 1) x 10 = 20 x 10 = 200 buckets of paint Number of buckets of paint sold in the first 2 months = (5 + 3) x 10 = 8 x 10 = 80 buckets of paint Percent of the buckets of paint sold in the first 2 months = $\frac{80}{\cancel{200}}$ x $\frac{\cancel{100}}{1}$ = 40% **Ans: 40%**
36.	**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.**

SECTION 3

37.

Store A
Discount
$= \frac{20}{\cancel{100}} \times \frac{\cancel{600}}{1} = 20 \times 6 = \$120.00$

Selling Price after discount
= Selling Price – discount
= \$600.00 – \$120.00 = \$480.00

Store B
Discount
$= \frac{35}{\cancel{100}} \times \frac{\cancel{800}}{1} = 35 \times 8 = \$280.00$

Selling Price after discount
= Selling Price – discount
= \$800.00 – \$280.00 = \$520.00

Store A has the cheaper price.
Ans: Store A

38.

1 litre = 1 000 ml
14.4 L x 1 000 = 14 400 ml

Number of cups sold
= 14 400 ÷ 600 ml = 24 cups

Total money
= \$4.50 x 24 cups = \$108.00
Ans: \$108.00

39.

(a)
Ans: Cube
(b)
Ans:

Number of Faces	Number of Vertices	Types of Internal Angles
6	**8**	**90° or right-angle internal angles**

40.

(a)
Total age of the 3 boys
= 10 + 8 + 8 = 26 years

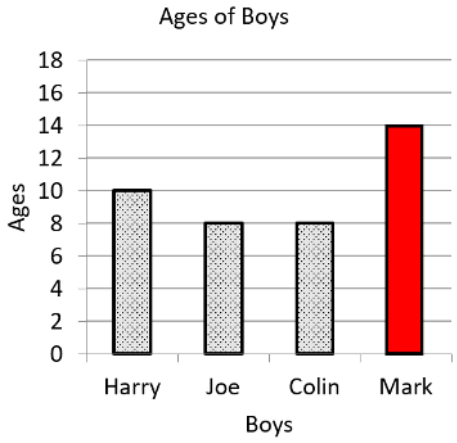
Method 1
$\frac{1}{4}$ of the total age of the boys = 10

$\frac{4}{4}$ of the total age of the boys
= 10 x 4 = 40 years

Mark's age = 40 – 26 = 14 years

Method 2
Total age of the boys
$= 10 \div \frac{1}{4} = \frac{10}{1} \times \frac{4}{1} = 40$ years

Mark's age = 40 – 26 = 14 years
Ans:



(b)
Ans: Joe and Colin are twins because they are the same age.

SECTION 1

1. **Ans: Six Hundred and Seven Thousand and Nine**

2.
36 ÷ 6 = 6
5 x 6 = 30
Ans: 30

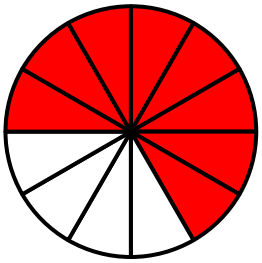
3.
Number of tyres on each car
= 4 + 1 = 5 tyres
Total number of tyres
= 9 cars x 5 tyres = 45 tyres
Ans: 45 tyres

4.

Tens	Ones	D.P.	Tenths	Hundredths
1	7	.	3	8

The hundredths digit is equal to or more than 5 so, the tenths digit increases by 1.
Ans: 17.4

5. $\frac{2}{\cancel{3}\ 1} \times \frac{\cancel{12}\ 4}{1} = 2 \times 4 = 8$ slices
Ans:



6.
16.75
x 3
50.25
Ans: 50.25

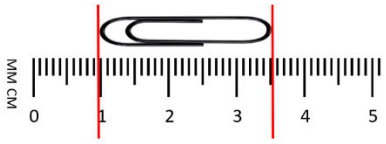
7.
Pattern:
The difference between successive numbers increases by 0.1.
0.3 + 0.7 = 1.0
1.0 + 0.8 = 1.8
1.8 + 0.9 = 2.7
2.7 + 1.0 = 3.7
Ans: 2.7

8.
95 X 2 = 190
Ans: 190 keychains

9.
$0.375 = \frac{375}{1000} = \frac{3}{8}$
Ans: $\frac{3}{8}$

10.
Sum of green, red and blue erasers
= 6 + 4 + 5 = 15
Number of yellow erasers
= 25 – 15 = 10
Percent of yellow erasers
$= \frac{10}{\cancel{25}\ 1} \times \frac{\cancel{100}\ 4}{1}$ = 10 x 4 = 40%
Ans: 40%

11.



Method 1
3.5 – 1 = 2.5 cm

Method 2
Measure the intervals.
$1 + 1 + \frac{1}{2} = 2\frac{1}{2}$ cm
Ans: 2.5 cm or $2\frac{1}{2}$ cm

12.
The triangle is an equilateral triangle.
Length of side AC
= Perimeter ÷ 3
= 39 m ÷ 3 = 13 m
Ans: 13 m

13.

1:25 in 24-hour format

= hr min

12 00

\+ 1 25

13 25

1 hour = 60 minutes

Time taken to complete the test

= hr min

13^{-1} 25^{+60}

12 85

– 10 45

2 40

Ans: 2 hours 40 minutes

14.

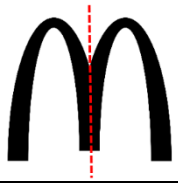
Width = area ÷ length

= 18 m^2 ÷ 6 = 3 m

Ans: 3 m

15.

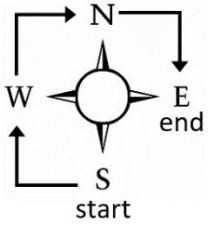
Ans:



16.

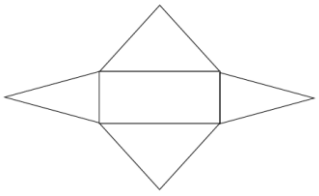
A right-angle turn = $\frac{1}{4}$ turn

3 quarter turns = 3 right-angle turns



Ans: 3 right-angle turns

17.



Ans: Rectangular based pyramid

18.

Number of phone users represented

= (6 + 2.5 + 1.5 + 3) x 4

= 13 x 4 = 52

Icons representing iPhone users

= (70 – 52) ÷ 4

= 18 ÷ 4 = 4.5

Ans:

Brand of Phone	Number of Students
Samsung	
Nokia	
Sony	
iPhone	
Huawei	

19.

Sum of items

= mean x number of items

= 9 x 3 = 27

9 + 11 = 20

Third number

= 27 – 20 = 7

Ans: 7

20.

The most frequent number or mode is 1.5 m.

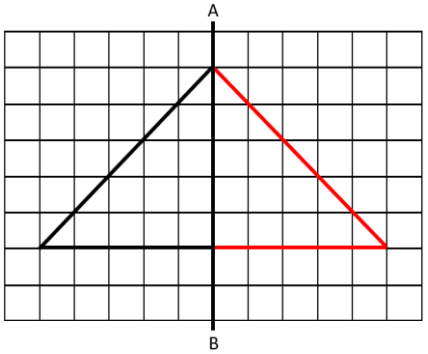
Ans: 1.5 m

SECTION 2

21.	23 x 4 = 92 chairs **Ans: 92 chairs**
22.	Method 1 $\frac{2}{5}$ = 80 $\frac{1}{5}$ = 80 ÷ 2 = 40 $\frac{5}{5}$ = 40 x 5 = 200 $\frac{3}{\cancel{4}\ 1} \times \frac{\cancel{200}\ 50}{1}$ = 3 x 50 = 150 Method 2 80 ÷ $\frac{2}{5}$ = $\frac{\cancel{80}\ 40}{1} \times \frac{5}{\cancel{2}\ 1}$ = 40 x 5 = 200 $\frac{3}{\cancel{4}\ 1} \times \frac{\cancel{200}\ 50}{1}$ = 3 x 50 = 150 **Ans: 150**
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**
24.	Number of boxes = 100 biscuits ÷ 4 biscuits per box = 25 boxes Number of lollipops in total = 25 boxes x 3 lollipops in each box = 75 lollipops **Ans: 75 lollipops** **25 boxes**

25.	Total cost of all the pens = \$4.25 x 6 = \$25.50 Total cost of all the copy books = \$94.50 – \$25.50 = \$69.00 Cost of 1 copy book = \$69.00 ÷ 6 = \$11.50 **Ans: \$11.50**
26.	Discount = 20% = $\frac{20}{100}$ Discount on computer $\frac{\cancel{20}\ 1}{\cancel{100}\ 5} \times \frac{4\,500}{1} = \frac{\cancel{4\,500}\ 900}{\cancel{5}\ 1}$ = \$900 Cost after discount = \$4 500 – \$900 = \$3 600 **Ans: \$3 600.00**
27.	Students travelling by car or bus = $\frac{48}{100} \times \frac{\cancel{25}\ 1}{1} = \frac{\cancel{48}\ 12}{\cancel{4}\ 1}$ = 12 students Fraction of students travelling by car = $\frac{4}{4} - \frac{1}{4} = \frac{3}{4}$ Students travelling by car = $\frac{3}{\cancel{4}\ 1} \times \frac{\cancel{12}\ 3}{1}$ = 3 x 3 = 9 students **Ans: 9 students**

28.	$\frac{1}{3}$ of Anthony's money = $\frac{2}{5}$ of Liam's money $\frac{1}{3}$ Anthony's money = $\frac{1}{\cancel{3}\ 1}$ x $\frac{\cancel{120}\ 40}{1}$ = \$40 Method 1 $\frac{2}{5}$ of Liam's money = \$40 $\frac{1}{5}$ of Liam's money = \$40 ÷ 2 = \$20 $\frac{5}{5}$ of Liam's money = \$20 x 5 = \$100 Method 2 $\frac{2}{5}$ of Liam's money = \$40 All of Liam's money = \$40 ÷ $\frac{2}{5}$ = $\frac{\cancel{\$40}\ 20}{1}$ x $\frac{5}{\cancel{2}\ 1}$ = 5 x \$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 ÷ 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 ml ÷ 250 ml = 50 cups Money collected = 50 cups x \$15 = \$750 **Ans: \$750.00**

31.	Time Asavari arrived at school = hr min 8 30 + 10 8 40 Time Asavari left home = hr min 8 40 – 37 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 cm^3 ÷ 8 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.	The sum of values = mean x number of values = 90 x 5 = 450 Sum of missing numbers = 450 – (92 + 65 + 75) = 450 – 232 = 218 218 – 8 = 210 1st missing number = 210 ÷ 2 = 105 2nd missing number = 105 + 8 = 113 **Ans: 105 and 113**

36.	Current modal number represented on Tuesday 5 icons x 5 = 25 Number of bicycles sold on Thursday = 3 icons x 5 = 15 bicycles 15 + 5 = 20 bicycles The modal number would not change as Tuesday would still have the highest frequency of sales. **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.**

SECTION 3

37.	$750.00 ÷ $2.50 = 300 pommecytheres 300 ÷ 5 = 60 free pommecytheres Number in the crate = number sold + number free = 300 + 60 = 360 pommecytheres **Ans: 360 pommecytheres**
38.	Area of each square = 2 cm x 2 cm = 4 cm^2 Total number of squares needed = 48 cm^2 ÷ 4 cm^2 = 12 squares Number of shaded squares = 6 + 0.5 + 0.5 = 7 squares Number Allan must colour = 12 – 7 = 5 squares **Ans: 5 squares**

39.	**Ans:** 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

40. (a)
Score for Test 2
$= \frac{2}{\cancel{3}} \times \frac{\cancel{90}\ 30}{1} = 2 \times 30 = 60$
Ans:

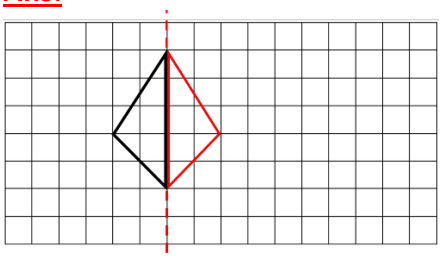
(b)
Mean score
= sum of scores ÷ number of tests
= (80 + 60 + 70 + 90) ÷ 4
= 300 ÷ 4 = 75
Ans: 75

(b)
Mean score
= sum of scores ÷ number of tests
= (80 + 60 + 70 + 90) ÷ 4
= 300 ÷ 4 = 75
Ans: 75

SECTION 1

1.	3 000 400 80 + 3 3 483 **Ans: 3 483**
2.	$\frac{4}{\cancel{5}\ 1} \times \frac{\cancel{200}\ 40}{1}$ = 4 x 40 = $160.00 **Ans: $160.00**
3.	78 ÷ 6 = 13 **Ans: 13**
4.	Amount of money spent on travelling for the week = $14.00 x 5 = $70.00 **Ans: $70.00**
5.	3 blue gems = 8 red gems 9 ÷ 3 = 3 9 blue gems = 3 x 8 = 24 red gems **Ans: 24 red gems**
6.	Total cost of the items = $23.54 + $8.65 = $32.19 19¢ is < 50¢, so $32.19 rounded off to the nearest dollar = $32.00 **Ans: $32.00**
7.	0.35 = $\frac{35}{100}$ when reduced by 5 = $\frac{7}{20}$ **Ans: $\frac{7}{20}$**
8.	71 – 9 = 62 **Ans: 62**
9.	Total fraction of cake that was given away = 2 x $\frac{2}{5} = \frac{2}{1} \times \frac{2}{5} = \frac{4}{5}$ Fraction of the cake that remained = $\frac{5}{5} - \frac{4}{5} = \frac{1}{5}$ **Ans: $\frac{1}{5}$**

10.	Number of reward cards given away = $\frac{\cancel{30}}{\cancel{100}} \times \frac{\cancel{180}}{1}$ = 3 x 18 = 54 reward cards **Ans: 54 reward cards**
11.	1 000 g = 1 kg 650 g = 650 ÷ 1 000 = 0.65 kg Weight of the watermelon in kgs = 4.3 kg + 0.65 kg = 4.95 kg **Ans: 4.95 kg**
12.	Time shown on the clock = 5:45 Correct time = hr min 5 45 – 18 5 27 = 5:27 **Ans: 5:27**
13.	Area of the square = Side x Side = 10 cm x 10 cm = 100 cm^2 Method 1 Area of shaded region = (100 cm^2 ÷ 4) x 2 = 25 cm^2 x 2 = 50 cm^2 Method 2 Shaded region = $\frac{2}{4} = \frac{1}{2}$ Area of shaded region = $\frac{1}{2}$ x 100 cm^2 = 50 cm^2 **Ans: 50 cm^2**
14.	The triangle is an isosceles triangle. Perimeter of the triangle = (13 cm x 2) + 18 cm = 26 cm + 18 cm = 44 cm **Ans: 44 cm**
15.	**Ans: A sphere**
16.	**Ans: $\frac{1}{3}$ of a complete turn**

17.	**Ans:** 
18.	The most frequent or modal length is 7.8 m. **Ans: 7.8 m**

19.	**Ans: 60**
20.	= Total number of virtual pets = (1 + 4 + 3 + 2 + 3) x 10 = 13 x 10 = 130 virtual pets Mean number of virtual pets each child owns = Total number of virtual pets ÷ Number of children = 130 ÷ 5 = 26 virtual pets **Ans: 26 virtual pets**

SECTION 2

21.	Number of marks Ishmael earned $= \frac{90}{100} \times \frac{120}{1} = 108$ marks Number of marks Kevin earned $= \frac{2}{3} \times \frac{108\ 36}{1} = 2 \times 36 = 72$ marks **Ans: 72 marks**
22.	**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.**
23.	Number of cookies in each bag = 180 ÷ 6 = 30 cookies Number of oatmeal cookies in each bag = $\frac{2}{5} \times \frac{30\ 6}{1}$ = 2 x 6 = 12 oatmeal cookies **Ans: 12 oatmeal cookies**
24.	Percent of students that are girls = 100% – 45% = 55% Number of girls in the school $= \frac{55}{100} \times \frac{700}{1}$ = 55 x 7 = 385 girls **Ans: 385 girls**

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

27.

Method 1

$6 - 2 = 4$

$\frac{1}{5} - \frac{7}{15}$

LCM of 5, 15 = 15

$\frac{1}{5} = \frac{3}{15}$

$\frac{3}{15} - \frac{7}{15}$

Borrow a whole = $\frac{15}{15}$, add to $\frac{3}{15}$

$4 - 1 = 3$

$(\frac{15}{15} + \frac{3}{15}) - \frac{7}{15} = \frac{18}{15} - \frac{7}{15} = \frac{11}{15}$

$3 + \frac{11}{15} = 3\frac{11}{15}$

Method 2

$6\frac{1}{5} = \frac{31}{5}$ $\quad$ $2\frac{7}{15} = \frac{37}{15}$

LCM of 5, 15 = 15

$\frac{31}{5} = \frac{93}{15}$

$\frac{93}{15} - \frac{37}{15} = \frac{56}{15} = 3\frac{11}{15}$

Ans: $3\frac{11}{15}$

28.

Pattern

$1^2 = 1 \times 1 = 1$

$2^2 = 2 \times 2 = 4$

$3^2 = 3 \times 3 = 9$

$5^2 = 5 \times 5 = 25$

$7^2 = 7 \times 7 = 49$

$11^2 = 11 \times 11 = 121$

$13^2 = 13 \times 13 = 169$

Ans: The number pattern is the squares of the series of prime numbers.

1	4	9	25	**49**	121	**169**

29.

Decimal fraction of the piece of wood remaining

= 1.0 – 0.4 = 0.6

Length of wood remaining in metres

= 0.6 x 6 m = 3.6 m

Length of each small piece of wood

= 3.6 m ÷ 3 = 1.2 m

Ans: 1.2 m

30.

1 kg = 1 000 g

Potatoes

2 kg = 1 000 x 2 = 2 000 g

2 000 g ÷ 250 g = 8

Total cost of the potatoes

= \$2.50 x 8 = \$20.00

Bananas

$= 1\frac{1}{2}$ kg x 1 000 = $\frac{3}{\cancel{2}\ 1} \times \frac{\cancel{1000}\ 500}{1}$

= 3 x 500 = 1 500 g

1 500 g ÷ 500 g = 3

Total cost of the bananas

= \$3.20 x 3 = \$9.60

Total cost of the items

= \$20.00 + \$9.60 = \$29.60

Ans: \$29.60

31.

Distance has a beginning and an end so, subtract 1 from the number of light poles.

Distance between every two light poles = Length of the street ÷ (Number of light poles – 1)

= 60 m ÷ (21 – 1)

= 60 m ÷ 20 = 3 m

Ans: 3 m

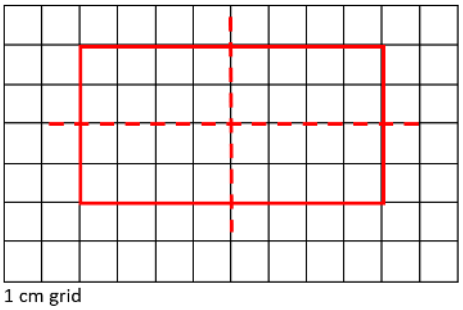
32.

Total weight of the books

= kg	g
8	900
x	6
48^{+5}	~~5~~400
53	400

53 kg 400 g or 53.4 kg

Ans: 53 kg 400 g or 53.4 kg

33.	Number of edges in a cube = 12 Total length of all the edges = 12 x 7 = 84 cm **Ans: 84 cm**
34.	Area of a rectangle = Length x Width 32 cm^2 = Length x 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 A rectangle has 2 lines of symmetry. **Ans:**  1 cm grid

35.	Total number of houses built in servers 2 and 3 = (3.5 + 2.5) x 6 = 6 x 6 = 36 houses **Ans: 36 houses**
36.	The modal toy is spinners. Number of toy cars = 10 – 3 = 7 toy cars Total number of toys = 3 + 7 + 6 + 10 = 26 toys **Ans: 26 toys**

SECTION 3

37. Number of nights at $600 (Monday and Thursday) = 2 nights
Cost of their stay during Monday and Thursday
= $600.00 x 2 = $1 200.00

Number of nights at $700 (Friday and Sunday) = 3 nights
Cost of their stay between Friday and Sunday
= $700.00 x 3 = $2 100.00

Total number of nights
= 2 + 3 = 5
Total cost of the food
= $250.00 x 5 = $1 250.00

Total amount of money the Guevara family spent on hotel and food
= $1 200.00 + $2 100.00 + $1 250.00
= $4 550.00
Ans: $4 550.00

38. Total length of time Miss Penny spent ironing
= hr min
5 35
– 3 20
2 15 2 hrs 15 mins

Length of time she took to iron the blouses = 15 minutes x 5
= 75 minutes = 1 hr 15 mins

Length of time spent ironing the skirts
= hr min
2 15
– 1 15
1 00 1 hr or 60 mins

Time took to iron each skirt = 60 minutes ÷ 6 = 10 minutes
Ans: 10 minutes

39. (a)
Length of the unknown side
= 127 cm – (27 cm+ 40 cm)
= 127 cm – 67 cm = 60 cm
Ans: 60 cm
(b)
Ans: Scalene Triangle
(c)
Angle Y is > 180° and < 360°. Angle Y is a reflex angle.
Ans: A reflex angle

40. (a)
Ans:

Days	Tally	Number of Gyros
Monday	𝍸 I	6
Tuesday	𝍸 IIII	9
Wednesday	𝍸 𝍸	10
Thursday	𝍸 II	7
Friday	IIII	4

(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
Ans: 0.25

SECTION 1

1.

$$\begin{array}{r} 2109 \\ +\ 435 \\ \hline 2544 \end{array}$$

Ans: 2 544

2.

$$\begin{array}{r} 7.85 \\ -\ 5.64 \\ \hline 2.21 \end{array}$$

Ans: 2.21

3. $35\% = \frac{35}{100}$

$\frac{\cancel{35}\ 7}{\cancel{100}\ 20} \times \frac{60}{1} = \frac{7}{\cancel{20}\ 1} \times \frac{\cancel{60}\ 3}{1}$

$= 7 \times 3 = 21$

Ans: 21

4. $\frac{56}{64}$ when reduced by 8 = $\frac{7}{8}$

Ans: $\frac{7}{8}$

5. Percent

$= \frac{\cancel{15}\ 1}{\cancel{60}\ 4} \times \frac{100}{1} = \frac{1}{\cancel{4}\ 1} \times \frac{\cancel{100}\ 25}{1} = 25\%$

Ans: 25%

6. This pattern consists of descending, odd, square numbers.

$81 = 9^2$

$49 = 7^2$

$25 = 5^2$

$9 = 3^2$

Ans: 9

7.

Tens	Ones	D.P.	Tenths	Hundredths
8	3	.	2	5

The hundredths digit is equal to 5 so the tenths digit increases by 1.

Ans: 83.3

8. 1 journal = 30 pages

8 journals

= 30 pages x 8 = 240 pages

Ans: 240 pages

9.

$$\begin{array}{rl} 4 \text{ x } 25¢ = & \$1.00 \\ 1 \text{ x } 10¢ = & .10¢ \\ 1 \text{ x } \ 5¢ = & .05¢ \\ +\ 4 \text{ x } \ 1¢ = & .04¢ \\ \hline 10 & \$1.19 \end{array}$$

Ans: 10 coins

10. 2017 – 1982 = 35 years

Ans: 35 years

11. Area of the garden

= Length x Width

= 12 m x 8 m = 96 m^2

Ans: 96 m^2

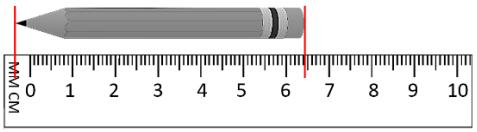
12. **Ans: B**

13. 60 minutes = 1 hour

240 minutes = 240 ÷ 60 = 4 hours

Ans: 4 hours

14.



The tip of the pencil is before the 0 cm marker.

Length of pencil > 6.5 cm. Rounded to the nearest cm = 7 cm

Ans: 7 cm

15. **Ans: AB**

16. **Ans: A**

17. **Ans: Cylinder**

18. Friday = 7 children

Thursday = 2 children

7 – 2 = 5

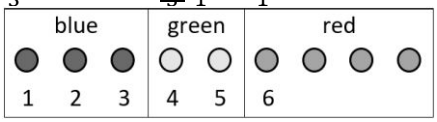
Ans: 5 children

19.	The sum of items = mean x number of items $= 5\frac{1}{3} \times 9 = \frac{16}{\cancel{3}\ 1} \times \frac{\cancel{9}\ 3}{1} = 16 \times 3 = 48$ **Ans: 48**

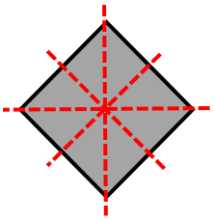
20.	The most frequent fast food restaurant or mode is Pizza Hut. **Ans: Pizza Hut**

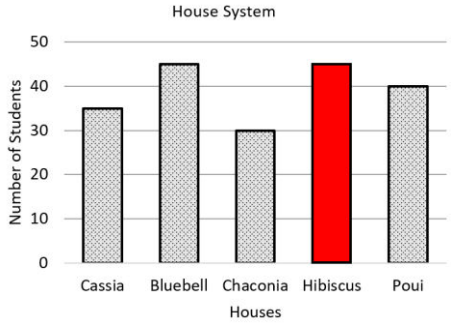
SECTION 2

21.	$\frac{2}{10} = \frac{20}{100}$ $\frac{4}{100} + \frac{20}{100} = \frac{24}{100} = 0.24$ **Ans: 0.24**
22.	Use inverse operations 62 – 8 = 54 54 ÷ 6 = 9 **Ans: 9**
23.	The auditorium can seat = 21 rows x 15 chairs = 315 people Extra seats needed = 450 – 315 = 135 seats Extra rows needed = 135 seats ÷ 15 chairs = 9 rows **Ans: 9 rows**
24.	Number of cucumbers $= \frac{1}{\cancel{3}\ 1} \times \frac{\cancel{150}\ 50}{1}$ = 50 cucumbers Number of sweet peppers $= \frac{\cancel{10}}{\cancel{100}} \times \frac{\cancel{150}}{1}$ = 15 sweet peppers Number of potatoes = 150 – (50 + 15) = 150 – 65 = 85 **Ans: 85 potatoes**
25.	248 193 + 34 475 **Ans: 475**

26.	1 pattern = 2 green marbles 9 patterns = 9 x 2 = 18 green marbles 1 pattern = 3 + 2 + 4 = 9 marbles $\frac{2}{3}$ pattern $= \frac{2}{\cancel{3}\ 1} \times \frac{\cancel{9}\ 3}{1}$ = 6 marbles  $\frac{2}{3}$ of a pattern = 2 green marbles Total number of green marbles = 18 + 2 = 20 green marbles **Ans: 20 green marbles**
27.	Rent for 4 days = $525 x 4 = $2 100 Total = Rent + Groceries = $2 100 + $785 = $2 885 **Ans: $2 885.00**
28.	Richard's share = 2400 ÷ 2 = $1200 Remainder = $2400 – $1200 = $1200 $1 200 ÷ 3 = $400 Stacy = $400 x 2 = $800 Sarah = $400 **Ans:** Richard: **$1 200.00** Stacy: **$800.00** Sarah: **$400.00**
29.	1 litre = 1 000 ml Number of 25 ml cups = 1000 ml ÷ 25 ml = 40 cups **Ans: 40 cups**

30.	1 kg = 1 000 g Flour remaining after making bread = Kg g 45^{-1} 000^{+1000} 44 1000 – 4 730 40 270 Flour remaining after bag fell = 40 kg 270 g ÷ 2 = 20 kg 135 g **Ans: 20 kg 135 g**
31.	**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.** **To calculate the length, Adonis needs to determine the perimeter of the square piece of land.** **Perimeter of a square = side x 4.** **Perimeter of the land** **= 11 m x 4 = 44 m.** **Total cost of the chain link required** **= 44 m x $35 = $1 540**
32.	Nikhil took $1\frac{1}{4}$ hours = 1 hour 15 minutes Length of time Ananya took to complete the test = hr min 1 15 – 10 1 05 = 1 hour 5 minutes Time Ananya completed the test = hr min 8 30 + 1 05 9 35 = 9:35 a.m. **Ans: 9:35 a.m.**

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

36.	Sum of values = mean x number of values Sum of values = 39 x 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 $= \frac{3}{\cancel{5}\ 1}$ x $\frac{\cancel{400}\ 80}{1}$ = 3 x 80 = 240 Number of passengers remaining = 400 – 240 = 160 passengers 0.75 = $\frac{75}{100}$ Number of passengers seated in 3-seater benches $= \frac{\cancel{75}\ 3}{\cancel{100}\ 4}$ x $\frac{160}{1}$ = $\frac{3}{\cancel{4}\ 1}$ x $\frac{\cancel{160}\ 40}{1}$ = 3 x 40 = 120 Number of passengers standing = 160 – 120 = 40 passengers **Ans: 40 passengers**

38.

Total length of class time
= 40 minutes x 7 classes
= 280 minutes

Total length of class time and recess
= 280 minutes + 30 minutes
= 310 minutes

2:30 p.m. in 24-hour format
= 12:00
+ 2:30
14:30 hours

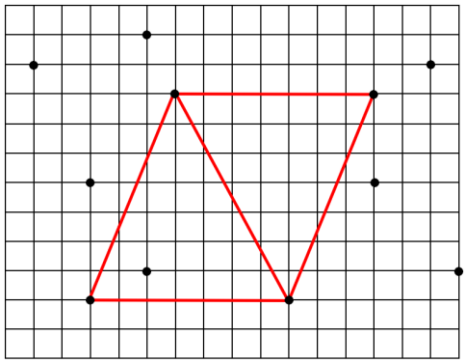
Length of time between the beginning and end of school
= hr min
14 30
– 8 30
6 00 = 6 hours

310 minutes ÷ 60 minutes
= 5 hrs 10 min

Length of time the lunch period lasts
= hr min
6 00
– 5 10
50 = 50 minutes
OR
6 hours = 6 x 60 = 360 minutes
Length of time the lunch period lasts
= 360 – 310 = 50 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) ÷ 2
= 150 ÷ 2 = 75

Marks in mathematics
= 75 + 10 = 85

Ans: