SECTION 1

1.	$0.3 = \frac{3}{10}$ $\frac{3}{10} = \frac{3}{1} \times \frac{1}{10} = 3 \times \frac{1}{10}$ **Ans: $\frac{1}{10}$**
2.	Total cost of the 2 pencils = \$3.50 x 2 = \$7.00 Change received = \$10.00 – \$7.00 = \$3.00 **Ans: \$3.00**
3.	6% = $\frac{6}{100}$ when reduced by 2 = $\frac{3}{50}$ **Ans: $\frac{3}{50}$**
4.	**Ans: The pattern increases by 0.2**
5.	1 m = 100 cm 2 m = 2 x 100 = 200 cm 200 x 0.6 = 120 cm **Ans: 120 cm**
6.	Selling price = Cost Price – Loss = \$600.00 – \$75.00 = \$525.00 **Ans: \$525.00**
7.	$6^3 = 6 \times 6 \times 6$ = 36 x 6 = 216 **Ans: 216**
8.	Number of cases of water = 192 ÷ 24 = 8 cases of water **Ans: 8 cases of water**
9.	Largest decimal = 49.7. Smallest decimal = 4.5 49.7 + 4.5 54.2 **Ans: 54.2**
10.	$\frac{65}{\cancel{100}} \times \frac{\cancel{300}}{1} = 65 \times 3 = 195$ **Ans: 195**

11.	1 kg = 1 000 g 800 kg = 800 x 1 000 = 800 000 g **Ans: 800 000 grams**
12.	$\frac{3}{4} \times \frac{60}{1}$ = 45 minutes $1\frac{3}{4}$ hours = 1 hr 45 mins Time the movie finished = hr min 5 20 + 1 45 6^{+1} 65^{-60} 7 05 = 7:05 p.m. **Ans: 7:05 p.m.**
13.	Number of small cubes in the figure = 3 x 3 x 2 = 18 cubes Volume of the object = Number of small cubes x Volume of each small cube = 18 x 8 cm^3 = 144 cm^3 **Ans: 144 cm^3**
14.	Perimeter = Side x 4 = 12 cm x 4 = 48 cm **Ans: 48 cm**
15.	**Ans:** 
16.	**Ans:** Solid: **Cone**; Number of Vertices: 1; Number of Edges: 1

17.	Quarter turn = 90° Number of quarter turns the arrow turned = 270° ÷ 90° = 3 **Ans: 3 quarter turns**
18.	Number of tyres sold in total = (1 + 4 + 3 + 6 + 4 + 3 + 4) x 4 = 25 x 4 = 100 tyres **Ans: 100 tyres**

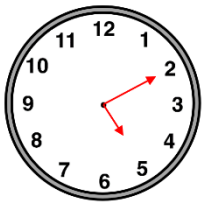
19.	**Ans: Maths and Literature**
20.	Total = Mean x Number of numbers = 44 x 6 = 264 **Ans: 264**

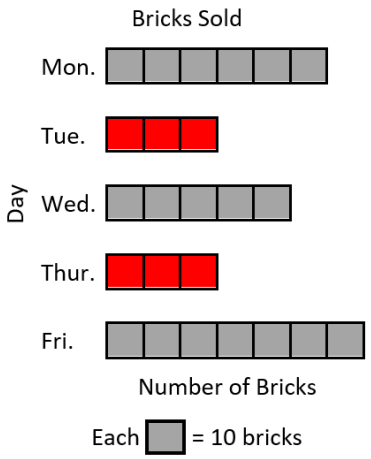
SECTION 2

21.	$7^2 = 7 \times 7 = 49$ Missing number = 86 – 49 = 37 **Ans: 37**
22.	$15\frac{1}{2} = \frac{31}{2}$ $3\frac{1}{4} = \frac{13}{4}$ $\frac{31}{2} \div \frac{13}{4} = \frac{31}{\cancel{2}\ 1} \times \frac{\cancel{4}\ 2}{13} = \frac{62}{13} = 4\frac{10}{13}$ **Ans: $4\frac{10}{13}$**
23.	Total number of ties in one of each size bag = 3 + 9 = 12 ties Number of bags containing 3 and 9 ties each = 156 ÷ 12 = 13 bags each **Ans: 13 bags each**
24.	$\frac{15}{10\cancel{0}} \times \frac{4\cancel{0}}{1} = \frac{6\cancel{0}}{1\cancel{0}}$ = 6 tomatoes fewer were sold on Sunday Number of tomatoes sold on Sunday = 40 – 6 = 34 tomatoes Total number of tomatoes sold on Saturday and Sunday = 40 + 34 = 74 tomatoes Total amount of money made from the sale of tomatoes for the 2 days = 74 x $4.00 = $296.00 **Ans: $296.00**

25.	26 + 42 = 68 123 x 68 984 7380 8364 **Ans: 8 364**
26.	Jerry's regular daily wage = Hourly rate of pay x Number of regular hours worked = $60.00 x 8 = $480.00 Jerry's overtime rate of pay $= 1\frac{1}{2}$ x Hourly rate of pay $= \frac{3}{\cancel{2}\ 1} \times \frac{\cancel{60}\ 30}{1}$ = 3 x 30 = $90.00 Number of overtime hours worked = 11 – 8 = 3 hours overtime Jerry's overtime wage for Monday = $90.00 x 3 = $270.00 Amount of money Jerry earned on Monday = Regular daily wage + Overtime wage for Monday = $480.00 + $270.00 = $750.00 **Ans: $750.00**

27.	Percent of the cars that remained = 100% – 40% = 60% Percent of the cars James kept = $\frac{3}{\cancel{5}\ 1}$ x $\frac{\cancel{60}\ 12}{100}$ = $\frac{36}{100}$ = 36% **Ans: 36%**
28.	Quil = X Byron = X + \$6.00 X + X + \$6.00 = \$56.00 X + X = \$56.00 – \$6.00 = \$50.00 X = \$50.00 ÷ 2 = \$25.00 Amount of money Byron received = \$25.00 + \$6.00 = \$31.00 **Ans: \$31.00**
29.	The length of each of the smaller objects = 12 cm ÷ 3 = 4 cm **Ans: All the edges of each smaller solid are the same length, so the type of solid is a cube.**
30.	Number of comics packed in Boxes A and B = 40 x 2 = 80 comics Number of comics packed in Box C = 140 – 80 = 60 comics Fraction of comics that was packed in Box C = $\frac{60}{140}$ when reduced by 20 = $\frac{3}{7}$ **Ans: $\frac{3}{7}$**
31.	Length of each pen = 9.0 cm – 2.5 cm = 6.5 cm Total length of 8 identical pens = 6.5 cm x 8 = 52 cm 100 cm = 1 m Total length of 8 identical pens in metres = 52 cm ÷ 100 = 0.52 m **Ans: 0.52 m**

32.	Five past ten in the morning is written as 10:05 a.m. Mary left home at the earlier time. **Ans: Mary** 
33.	**Ans:** Solid: Cylinder; Types of faces: **Circular and curved**; Shape of the cross-section: **Circle**
34.	**Ans: Shape A is a solid shape called a cube that has 6 square faces, 12 edges and 8 vertices. Shape B is a plane/flat shape called a square with 4 equal sides and 4 right angles.**

35.	Total number of bricks sold on the given days = (6 + 5 + 7) x 10 = 18 x 10 = 180 bricks Total number of bricks sold on both Tuesday and Thursday = 240 – 180 = 60 bricks Number of bricks sold each day on Tuesday and Thursday = 60 ÷ 2 = 30 bricks Number of blocks representing 30 bricks = 30 ÷ 10 = 3 blocks **Ans:** 

36.	Two smallest bands are Carnival Lovers and Seasons of the Year 1 500 + 2 900 = 4 400 The biggest band is Birds of the Caribbean = 4 500 **Ans: No, it would not be the biggest band.**

SECTION 3

37.	1 loaf of bread = 3 eggs 8 loaves of bread = 3 x 8 = 24 eggs 1 cake = 5 eggs 4 cakes = 5 x 4 = 20 eggs Total number of eggs used = 24 + 20 = 44 eggs Total number of eggs purchased = 12 x 4 = 48 eggs Number of eggs remaining = 48 – 44 = 4 eggs **Ans: 4 eggs**

38.	Number of cubes in container = L x W x H = 3 x 3 x 3 = 27 cubes Volume of each cube = 3 cm x 3 cm x 3 cm = 27 cm^3 Volume of container = 27 cubes x 27 cm^3 = 729 cm^3 **Ans: 5 m**

39. (a)

Ans:

Number of Edges	Types of Faces
9	**Triangular and rectangular**

(b)

Ans: An equilateral triangle

(c)

Size of Angle X = 180° ÷ 3 = 60°

Ans: 60°

40. (a)

Total amount of money saved
= Mean amount of money saved
x Number of days
= $12.00 x 5 = $60.00

Total amount of money saved on the given days
= $12.00 + $13.50 + $10.00 + $13.50
= $49.00

Amount of money saved on Thursday
= $60.00 – $49.00 = $11.00

Ans: $11.00

(b)

Ans: $13.50

(c)

Money Lewis still needs to save
= $75.00 – $60.00 = $15.00

Ans: $15.00

SECTION 1

1.

Hundreds	Tens	Ones		Tenths	Hundredths
6	2	4	.	9	1

Ans: $\frac{9}{10}$ or **9 tenths**

2.

$\frac{5}{100}$ when reduced by 5 = $\frac{1}{20}$

Ans: $\frac{1}{20}$

3.

$\sqrt{81} = 9$

$9 \div 3 = 3$

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

$3 = 2 + 1$

Ans: 2

4.

$\frac{\cancel{12}\ 3}{\cancel{16}\ 4} \times \frac{100}{1} = \frac{3}{\cancel{4}\ 1} \times \frac{\cancel{100}\ 25}{1}$

$= 25 \times 3 = 75\%$

Ans: 75%

5.

$(4 \times 5) + 3 = 20 + 3 = 23$

$\frac{23}{5}$

Ans: $\frac{23}{5}$

6.

$$\begin{array}{r} 74 \\ \times\ 12 \\ \hline 148 \\ 740 \\ \hline 888 \end{array}$$

Ans: 888

7.

$5\% = \frac{5}{100} = 0.05$

Ans: 0.05

8.

Number of games lost and drawn
$= 1 + 3 = 4$
Number of games won
$= 16 - 4 = 12$
Percent of games won
$= \frac{\cancel{12}\ 3}{\cancel{16}\ 4} \times \frac{100}{1} = \frac{3}{\cancel{4}\ 1} \times \frac{\cancel{100}\ 25}{1}$
$= 3 \times 25 = 75$

Ans: 75%

9.

Cost price – Loss
$= \$125 - \$30 = \$95$

Ans: $95.00

10.

$$\begin{array}{r} 0.8 \\ \times\ 0.3 \\ \hline 0.24 \end{array}$$

Ans: 0.24

11.

Length of the side of the square
$= \sqrt{\text{Area}} = \sqrt{121} = 11$ cm
Perimeter of the square
= Side x 4 = 11 cm x 4 = 44 cm

Ans: 44 cm

12.

1 kg = 1 000 g
1.15 kg x 1 000 = 1 150 g

Ans: 1 150 g

13.

1 hour = 60 minutes

Method 1

$6\frac{1}{2} = \frac{13}{2}$

$\frac{13}{\cancel{2}\ 1} \times \frac{\cancel{60}\ 30}{1} = 13 \times 30 = 390$ minutes

Method 2

6 hours = 6 x 60 = 360 minutes
$\frac{1}{2}$ hour = 60 ÷ 2 = 30 minutes
Total time taken in minutes
= 360 + 30 = 390 minutes

Ans: 390 minutes

14.

$2\frac{1}{2} = 2.5$ m
1 m = 100 cm
2.5 m = 2.5 x 100 = 250 cm
Number of pieces of string
= 250 ÷ 25 = 10 pieces

Ans: 10 pieces

15.

Ans: 5

16.	Angles A, B, C, D and G are all right angles. Angles E and F are both smaller than a right angle. **Ans: 2 angles**
17.	A pyramid is named after its base. A square-based pyramid is a pyramid with a square base and four triangular sides. **Ans: Square-based pyramid**

18.	Number of children who like Curious George = 6 blocks x 3 children = 18 children Number of children who like Dora = 2 blocks x 3 children = 6 children 18 children – 6 children = 12 more children like Curious George **Ans: 12 children**
19.	Mean = number of books ÷ number of stacks Mean = (6 + 2 + 5 + 3) ÷ 4 = 16 ÷ 4 = 4 **Ans: 4 books**
20.	The mode or most frequent age is 9. **Ans: 9**

SECTION 2

21.	Number of blocks = $\frac{1}{\cancel{4}} \times \frac{\cancel{64}\ 16}{1}$ = 16 blocks 64 + 16 = 80 Lego blocks **Ans: 80 Lego blocks**
22.	Discount = $\frac{20}{\cancel{100}} \times \frac{\$6\ 2\cancel{00}}{1}$ = 20 x 62 = $1 240 Price paid after the discount = $6 200 – $1 240 = $4 960 **Ans: $4 960.00**

23.	Vendor A 1 ochro = 12 ÷ 8 = $1.50 Vendor B 1 ochro = 15 ÷ 12 = $1.25 **Ans:** **Vendor B sold ochroes at a cheaper price than Vendor A, therefore giving customers a better bargain. For this reason, Vendor B sold more ochroes than Vendor A.**

24.	Chickens = 25% = $\frac{1}{4} = \frac{2}{8}$ Goats = $\frac{3}{8}$ Chickens and goats together $= \frac{2}{8} + \frac{3}{8} = \frac{5}{8}$ Sheep = $\frac{8}{8} - \frac{5}{8} = \frac{3}{8}$ Number of sheep $= \frac{3}{\cancel{8}\ 1} \times \frac{\cancel{1200}\ 150}{1}$ = 3 x 150 = 450 **Ans: 450 sheep**
25.	Sariah's 30 containers = the total remainder – Kaire's share $= \frac{3}{3} - \frac{1}{3} = \frac{2}{3}$ Method 1 $\frac{2}{3}$ = 30 containers Total remainder $= \frac{30}{1} \div \frac{2}{3} = \frac{\cancel{30}\ 15}{1} \times \frac{3}{\cancel{2}\ 1}$ = 15 x 3 = 45 containers Fraction of total remainder = fraction of containers Adonaia had first – fraction Nayyara received $= \frac{5}{5} - \frac{2}{5} = \frac{3}{5}$ = 45 containers Number of containers Adonaia had at first $= \frac{45}{1} \div \frac{3}{5} = \frac{\cancel{45}\ 15}{1} \times \frac{5}{\cancel{3}\ 1}$ = 15 x 5 = 75 containers

	Method 2 $\frac{2}{3}$ = 30 containers $\frac{1}{3}$ = 30 ÷ 2 = 15 containers Total remainder $= \frac{3}{3}$ = 15 x 3 = 45 containers Fraction of total remainder = fraction of containers Adonaia had first – fraction Nayyara received $= \frac{5}{5} - \frac{2}{5} = \frac{3}{5}$ = 45 containers $\frac{3}{5}$ = 45 containers $\frac{1}{5}$ = 45 ÷ 3 = 15 containers Number of containers Adonaia had at first $= \frac{5}{5}$ = 15 x 5 = 75 containers **Ans: 75 containers**
26.	Total spent = $35.00 + $4.50 = $39.50 Change received = $50.00 – $39.50 = $10.50 **Ans: $10.50**
27.	Number of blue pencils = 75 pencils – 60 red pencils = 15 pencils Decimal of pencils that are blue $= \frac{\cancel{15}\ 1}{\cancel{75}\ 5} = \frac{2}{10}$ = 0.2 **Ans: 0.2**
28.	Number of weeks needed to save = $3 600 ÷ $180 = 20 weeks **Ans: 20 weeks**

29.

Distance to brother's house
$= \frac{1}{\cancel{3}\ 1} \times \frac{\cancel{6600}\ 2200}{1}$ = 2 200 m

Total distance driven
= 6 600 + 2 200 = 8 800 m

1 000 m = 1 km
8 800 m ÷ 1 000 = 8.8 km
Ans: 8.8 km

30.

75% = $\frac{75}{100} = \frac{3}{4}$
Number of cars parked for 1 day
$= \frac{3}{\cancel{4}\ 1} \times \frac{\cancel{200}\ 50}{1}$ = 3 x 50 = 150 cars
Money collected on Monday
= 150 cars x $60 = $9 000
Ans: $9 000.00

31.

Time arrived
= hr min
8 30
– 05
8 25 a.m.

Time spent walking
= hr min
8 25
– 8 02
0 23 = 23 minutes
Ans: 23 minutes

32.

1 L = 1 000 ml
10 L = 10 x 1 000 = 10 000 ml
$\frac{3}{4}$ L = $\frac{3}{\cancel{4}\ 1} \times \frac{\cancel{1000}\ 250}{1}$ = 3 x 250 = 750 ml

Amount Susan made
= 10 000 ml + 750 ml = 10 750 ml

Number of cups that can be sold
= 10 750 ÷ 250 = 43 cups
Ans: 43 cups

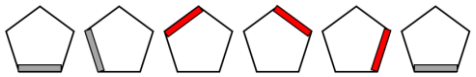
33.

Ans:

Description	Type of triangle
All sides unequal	**Scalene**
Two equal sides	**Isosceles**

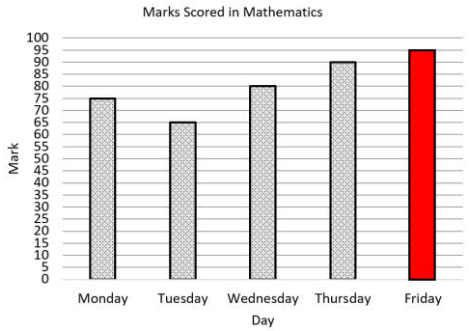
34.

Ans:



35.

Marks scored for the 4 days
= 75 + 65 + 80 + 90 = 310
Marks scored for the week = 405
Marks scored on Friday
= 405 – 310 = 95
Ans: 95 marks



36.

Mean
= sum of values ÷ number of values

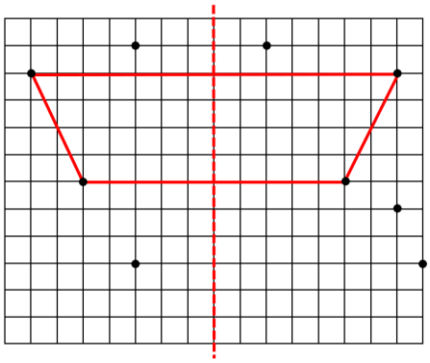
Fernando
= (11 + 14 + 13 + 12 + 10) ÷ 5
= 60 ÷ 5 = 12 minutes

Lewis = (13 + 14 + 15 + 12 + 11) ÷ 5
= 65 ÷ 5 = 13 minutes

Fernando's average time was better as it was shorter.
Ans: Fernando

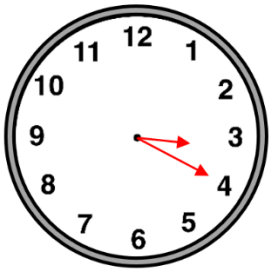
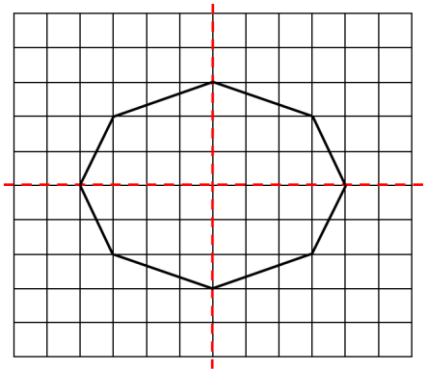
SECTION 3

37.	Number of OJTs $= \frac{4}{10\cancel{0}} \times \frac{15\cancel{0}}{1} = \frac{4}{10} \times \frac{15}{1} = \frac{6\cancel{0}}{1\cancel{0}} = 6$ Number of teachers and students = 150 – 6 = 144 persons Number of girls $= \frac{1}{\cancel{2}\ 1} \times \frac{\cancel{144}\ 72}{1}$ = 72 girls Number of boys $= \frac{4}{\cancel{9}\ 1} \times \frac{\cancel{144}\ 16}{1}$ = 4 x 16 = 64 boys Number of teachers = Number of teachers and students – Sum of girls and boys = 144 – (72 + 64) = 144 – 136 = 8 **Ans: 8 teachers**
38.	Brent's regular daily salary = Hourly rate of pay x Number of hours worked in the day = \$80.00 x 8 hours = \$640.00 Brent's regular weekly salary = \$640.00 x 5 days = \$3 200.00 Brent's overtime rate of pay = "time and a half" x Hourly rate of pay $= 1\frac{1}{2} \times \frac{80}{1} = \frac{3}{\cancel{2}\ 1} \times \frac{\cancel{80}\ 40}{1}$ = 3 x 40 = \$120.00 Brent's overtime wage for Monday = \$120.00 x 3 hours = \$360.00 Brent's total income for that week = Brent's regular weekly salary + Overtime wage = \$3 200.00 + \$360.00 = **\$3 560.00** **Ans: \$3 560.00**

39.	**Ans:** 
40.	Sum of runs for Dale = 40 + 36 + 34 + 50 = 160 Average number of runs = 160 ÷ 4 = 40 runs Sum of runs for Jason = 50 + 40 + 70 + 80 = 240 Average number of runs = 240 ÷ 4 = 60 runs Difference in the average number of runs = Average for Jason – Average for Dale = 60 – 40 = 20 runs **Ans: 20 runs**

SECTION 1

1.	184 – 16 168 **Ans: 168**
2.	Total amount of money given away = $23.00 x 2 = $46.00 Amount of money remaining = $60.00 – $46.00 = $14.00 **Ans: $14.00**
3.	0.325 x 100 = 32.5% **Ans: 32.5%**
4.	Method 1 $1.10 ÷ 0.05¢ = 22 pieces Method 2 $1.00 = 20 5¢ coin pieces 10¢ = 2 5¢ coin pieces 20 + 2 = 22 5¢ coin pieces **Ans: 22 5¢ coin pieces**
5.	7.2 x 9 = 64.8 **Ans: 64.8**
6.	32 ÷ 2 = 16 16 – 2 = 14 **Ans: 14**
7.	$\frac{\cancel{10}\ 2}{1} \times \frac{4}{\cancel{5}\ 1} = 2 \times 4 = 8$ **Ans: 8**
8.	$\frac{21}{7\cancel{0}} \times \frac{10\cancel{0}}{1} = \frac{\cancel{21}\ 3}{\cancel{7}\ 1} \times \frac{10}{1} = 3 \times 10 = 30\%$ **Ans: 30%**
9.	45 ÷ 5 = 9 Value of the missing number = 3 x 9 = 27 **Ans: 27**
10.	119 ÷ 7 = 17 **Ans: 17**

11.	Kg g 6^{-1} $^{1}300$ – 2 700 3 600 **Ans: 3 kg 600 g**
12.	15:20 in 12-hour format = hr min 15 20 – 12 00 3 20 = 3:20 p.m. **Ans:** 
13.	cm **Ans: 5 cm**
14.	**Ans: 21st May**
15.	**Ans:** 
16.	Number of hour segments the minute hand turned $= \frac{1}{\cancel{4}\ 1} \times \frac{\cancel{12}\ 3}{1} = 3$ Number the minute hand is now pointing to = 5 + 3 = 8 **Ans: 8**
17.	**Ans: A cone**

18.	Total = Mean x Number of items = 5 x 2 = 10 The other number = 10 – 7 = 3 **Ans: 3**
19.	Number of points Terrance scored = 45 points Number of points Sandra scored = 30 points 45 – 30 = 15 points **Ans: 15 points**

20.	Number of blocks = 4 + 3 + 5 + 7 + 2 = 21 blocks Number of ice cream cones each block represents = 63 ÷ 21 = 3 ice cream cones **Ans: 3 ice cream cones**

SECTION 2

21.	Number of stickers Julian had at first = 30 x 12 = 360 stickers Number of stickers Julian has now = 360 + 8 = 368 stickers **Ans: 368 stickers**
22.	Method 1 $\frac{2}{5}$ = \$600.00 $\frac{1}{5}$ = \$600.00 ÷ 2 = \$300.00 Total salary = $\frac{5}{5}$ = \$300.00 x 5 = \$1 500.00 $\frac{2}{3} = \frac{2}{\cancel{3}\ 1} \times \frac{\cancel{1500}\ 500}{1}$ = 2 x 500 = \$1 000.00
	Method 2 Total salary $= \frac{600}{1} \div \frac{2}{5} = \frac{\cancel{600}\ 300}{1} \div \frac{5}{\cancel{2}\ 1}$ = 300 x 5 = \$1 500.00 $\frac{2}{3} = \frac{2}{\cancel{3}\ 1} \times \frac{\cancel{1500}\ 500}{1}$ = 2 x 500 = \$1 000.00 **Ans: \$1 000.00**

23.	Position Lucy finished in the race = 100 – 42 = 58th place Number of runners who finished before Lucy = 58 – 1 = 57 runners **Ans: 57 runners**
24.	3 halves = $\frac{3}{1}$ x $\frac{1}{2} = \frac{3}{2} = 1\ \frac{1}{2}$ Miss Betty's remainder = $4\ \frac{1}{2} - 1\ \frac{1}{2} = 3$ 12 quarters = $\frac{\cancel{12}\ 3}{1} \times \frac{1}{\cancel{4}\ 1} = 3$ **Ans: Yes, this is correct as the remaining 3 whole oranges is equivalent to 12 quarter oranges.**
25.	Method 1 Number of seats in economy = 180 x 0.8 = 144 seats Number of seats in first class = 180 – 144 = 36 seats Method 2 Number of seats in first class = 1.0 – 0.8 = 0.2 = 180 x 0.2 = 36 seats **Ans: 36 seats**

26.

Prime numbers between 20 and 40
= 23, 29, 31 and 37
23 + 29 + 31 + 37 = 120
Ans: 120

27.

4 368 ÷ 78 = 56
Israel's answer = 56 + 4 = 60
Ans: 60

28.

80% = $\frac{80}{100}$ when reduced by 20 = $\frac{4}{5}$
$33\frac{1}{3}$ % = 0.33
0.875 x 100 = 87.5%
Ans:

Fraction	Decimal	Percentage
$\frac{4}{5}$	0.8	80%
$\frac{1}{3}$	**0.33**	$33\frac{1}{3}$%
$\frac{7}{8}$	0.875	**87.5%**

29.

Length of time the movie lasted
= hr min
5^{-1} 10^{+60}
4 70
– 3 50
1 20 = 1 hour 20 minutes

1 hour = 60 minutes
60 + 20 = 80 minutes
1 minute = 60 seconds
80 minutes = 80 x 60 = 4800 seconds
Ans: 4 800 seconds

30.

Perimeter of the bedroom
= \$900.00 ÷ \$30.00 = 30 m

Length of the bedroom
= (Perimeter ÷ 2) – Width
= (30 m ÷ 2) – 6 m
= 15 m – 6 m = 9 m
Ans: 9 m

31.

1 litre = 1 000 ml
4 litres = 4 x 1 000 = 4 000 ml

Fraction of the juice that remained
= $\frac{5}{5} - \frac{3}{5} = \frac{2}{5}$
Amount of juice that remained
= $\frac{2}{\cancel{5}\ 1} \times \frac{\cancel{4000}\ 800}{1}$ = 2 x 800 = 1 600 ml

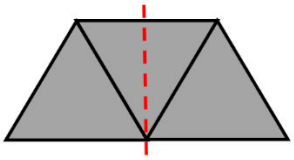
Amount of juice that remained in litres and millilitres = 1 L 600 ml
Ans: 1 L 600 ml

32.

Weight of 6 books
= kg g
8 900
x 6
48^{+5} $\cancel{5}400$
53 400
Ans: 53 kg 400 g

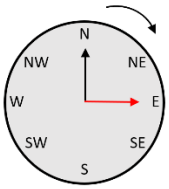
33.

Ans:



34.

Ans: 90°



35.

Ans: The plant would grow at a faster rate during the 6th week because of the increase in rainfall. The rate of plant growth is proportional to the amount of rainfall, so if there is an increase in rainfall, there would be an increase in the rate of plant growth.

36.

Number of spoons
= 6 x 2 = 12 spoons
Total number of utensils
= 12 + 8 + 6 = 26 utensils
Ans: 26 utensils

Utensils	Tally
Spoons	~~IIII~~ ~~IIII~~ II
Knives	~~IIII~~ III
Forks	~~IIII~~ I

SECTION 3

37.

Number of adults
$= = \frac{\cancel{350}\ 70}{1} \times \frac{1}{\cancel{5}\ 1} = 70$ adults

Number of boys and girls
= 350 – 70 = 280 boys and girls

X = Number of boys
X3 = Number of girls
X + X3 = 4X
Number of boys
= 280 ÷ 4 = 70 boys

Number of women
= 70 boys ÷ 2 = 35 women
Number of men
= 70 adults – 35 women = 35 men

Percent of adults that were men
$= = \frac{\cancel{35}\ 1}{\cancel{70}\ 2} \times \frac{100}{1} = 100 \div 2 =$ **50%**
Ans: 50%

38.

Perimeter of the living room
= (Length + Width) x 2
= (6 m + 4 m) x 2
= 10 m x 2 = 20 m

1 m = 100 cm
Perimeter of the living room in cm
= 20 m x 100 = 2 000 cm

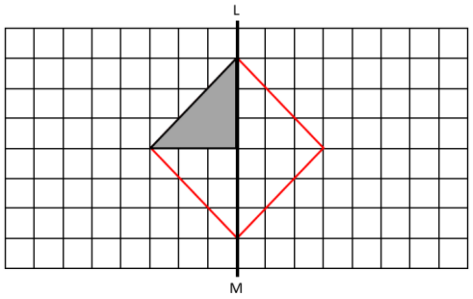
Number of bricks in 1 row of bricks
= 2 000 cm ÷ 40 cm = 50 bricks

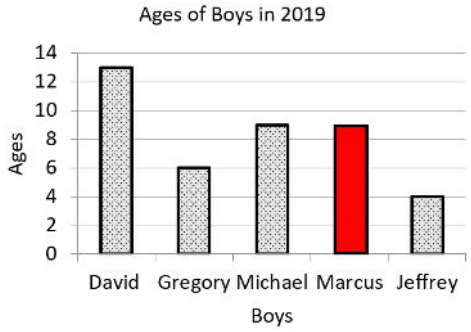
Number of bricks used in total
= 15 rows x 50 bricks = 750 bricks
Ans: 750 bricks

39.

(a)
Ans: An isosceles triangle or right-angled triangle

(b)
Ans:

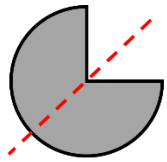


40.	(a) 2019 – 2014 = 5 Marcus' age in 2019 = 4 + 5 = 9 years old **Ans:**  (b) **Ans: Gregory**

SECTION 1

1.	6 475 – 1 324 5 151 **Ans: 5 151**
2.	(5 x 2) + 1 = 10 + 1 = 11 **Ans:** $\frac{11}{2}$
3.	**Ans: 6 412**
4.	This pattern consists of descending square numbers: $144 = 12^2$ $121 = 11^2$ $100 = 10^2$ $81 = 9^2$ $64 = 8^2$ **Ans: 64**
5.	1 cake = $\frac{5}{5}$ 3 cakes = 3 x $\frac{5}{5}$ = $\frac{15}{5}$ or 15 slices 15 – 8 = 7 slices or $\frac{7}{5} = 1\frac{2}{5}$ **Ans:** $1\frac{2}{5}$
6.	<table><tr><th>Thousands</th><th>Hundreds</th><th>Tens</th><th>Ones</th></tr><tr><td>6</td><td>5</td><td>1</td><td>9</td></tr></table> The hundreds digit is equal to or more than 5 so the thousands digit increases by 1. **Ans: 7 000**
7.	0.05 x 100 = 5% **Ans: 5%**
8.	Number incorrect = 80 – 56 = 24 Fraction incorrect = $\frac{\cancel{24}\ 3}{\cancel{80}\ 10} = \frac{3}{10}$ **Ans:** $\frac{3}{10}$

9.	2 x \$10.00 = \$20.00 1 x \$50.00 = \$50.00 3 x \$5.00 = \$15.00 \$85.00 **Ans: \$85.00**
10.	$8^2 - \sqrt{144}$ 64 – 12 = 52 **Ans: 52**
11.	84 m ÷ 2.4 m = 35 rulers **Ans: 35 rulers**
12.	Sides AB + CD = 6 cm + 12 cm = 18 cm Side AC = BD Sides AC + BD = Perimeter – 18 cm = 36 cm – 18 cm = 18 cm BD = 18 cm ÷ 2 = 9 cm **Ans: 9 cm**
13.	Method 1 11:10 to 12:10 = 1 hour 12:10 to 1:10 = 1 hour Total time taken = 2 hours Method 2 1:10 in 24-hour format = 1:10 + 12:00 = 13:10 Total time taken = hr min 13 10 – 11 10 2 00 = 2 hours **Ans: 2 hours**
14.	1 000 grams = 1 kilogram kg g 4 786 + 2 263 6^{+1} ~~1~~049 7 049 **Ans: 7 kg 49 g**

15.	**Ans:** 
16.	**Ans: C**
17.	**Ans: 12 edges**

18.	Number of students who like coconut ice cream = 20 – (3 + 8 + 3) = 20 – 14 = 6 students **Ans:** Ice-cream Flavours: Number of Students Chocolate: III Cookies & Cream: ~~IIII~~ III Coconut: ~~IIII~~ I Strawberry: III
19.	25 + 15 = 40 Mean = 40 ÷ 2 = 20 40 – 13 = 27 **Ans: 27**
20.	**Ans: Set B**

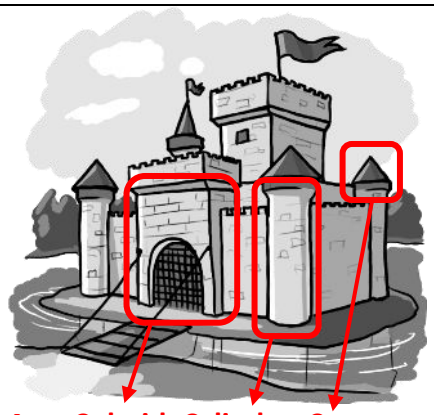
SECTION 2

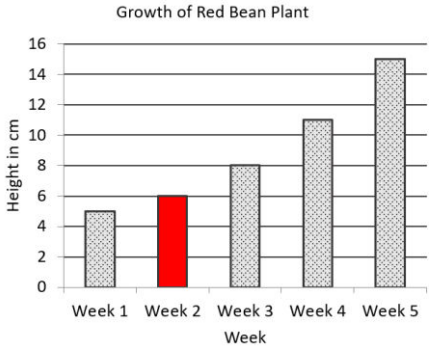
21.	Values can be converted to either decimal fractions, common fractions or percentages for comparison. 0.25 = 25% = $\frac{1}{4}$ $\frac{1}{5}$ = 0.20 = 20% 45% = 0.45 = $\frac{9}{20}$ **Ans: 45%, 0.25, $\frac{1}{5}$**

22.	Method 1 $\frac{3}{8}$ = 240 $\frac{1}{8}$ = 240 ÷ 3 = 80 $\frac{8}{8}$ = 80 x 8 = 640 $\frac{1}{\cancel{4}\ 1} \times \frac{\cancel{640}\ 160}{1}$ = 160 Method 2 $240 \div \frac{3}{8} = \frac{\cancel{240}\ 80}{1} \times \frac{8}{\cancel{3}\ 1}$ = 80 x 8 = 640 $\frac{1}{\cancel{4}\ 1} \times \frac{\cancel{640}\ 160}{1}$ = 160 **Ans: 160**

23.	Number planted on Tuesday = 40 x 4 = 160 plants planted Total number planted = 40 + 160 = 200 Percentage of the total number planted = $\frac{160}{200}$ x $\frac{100}{1}$ = $\frac{\cancel{160}\ 80}{\cancel{2}\ 1}$ = 80% **Ans: 80%**
24.	150 seashells used as a common dividend. Ian = 150 ÷ 5 = 30 seashells Jason = 150 ÷ 3 = 50 seashells **Ans: Jason will get the greater number. He divided the number of seashells using a smaller number (divisor) than Ian and will always get a larger answer (quotient) no matter how many seashells there are.**
25.	$\frac{20}{\cancel{100}}$ x $\frac{\cancel{500}}{1}$ = 20 x 5 = $100 discount Price of shoes after discount = $500 – $100 = $400 **Ans: $400.00**
26.	Number of boxes = 75 ÷ 5= 15 boxes 15 boxes x $20 = $300 **Ans: $300.00**
27.	0.20 = $\frac{\cancel{2}\ 1}{\cancel{10}\ 5}$ = $\frac{1}{5}$ $\frac{1}{\cancel{5}\ 1}$ x $\frac{\cancel{1\,200}\ 240}{1}$ = 240 more seats Number of seats available for the football match = 1 200 + 240 = 1 440 **Ans: 1 440 seats**

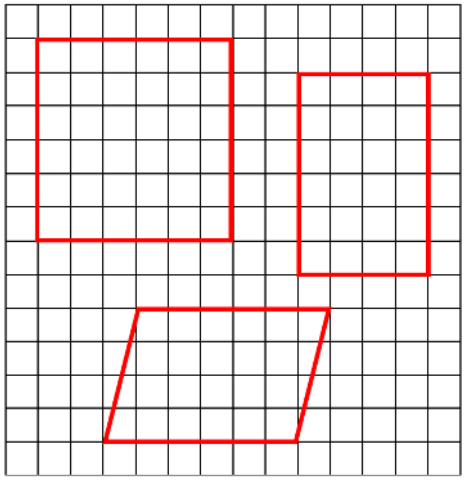
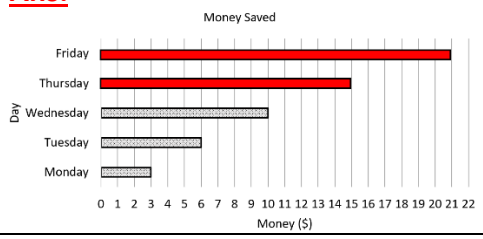
28.	Amount saved daily = $\frac{1}{\cancel{5}\ 1}$ x $\frac{\cancel{150}\ 30}{1}$ = $30 5 days x 4 weeks = 20 days Amount saved in 4 weeks = 20 days x $30 = $600 **Ans: $600.00**
29.	Number of complete squares in shape = 15 Number of half squares in shape = 6 6 halves = 3 whole squares Total number of squares in shape = 15 + 3 = 18 Area of each square = 2 cm x 2 cm = 4 cm^2 Area of shape = Number of squares x Area of each square = 18 x 4 cm^2 = 72 cm^2 **Ans: 72 cm^2**
30.	Amount spent = $400 + $240 = $640 Money remaining = $1 000 – $640 = $360 Number of shirts that can be bought = 360 ÷ 120 = 3 shirts **Ans: 3 shirts**
31.	Time instructor left the pool = hr min 9 55 – 05 9 50 Time spent in the pool = hr min 9 50 – 9 15 0 35 = 35 minutes **Ans: 35 minutes**

32.	Total weight of the pumpkins = kg g 2 400 x 3 6^{+1} ~~1~~200 7 200 Total weight of the potatoes = kg g 9^{-1} ^{1}000 8 1000 – 7 200 1 800 1 kg = 1000 g Total weight of the potatoes in grams = 1 800 grams Weight of each potato = 1 800 grams ÷ 2 = 900 grams **Ans: 900 g**
33.	**Ans: Shape B**
34.	 **Ans: Cuboid, Cylinder, Cone** (choose any 2)

35.	The new tax would mean the cost per car will increase. Sales would decrease when the new tax is introduced. **Ans: The new tax was charged in April as the sales decreased. The number of cars sold in July would be less than 50.**
36.	Week 5 to 4 = 15 cm – 11 cm = 4 cm Week 4 to 3 = 11 cm – 8 cm = 3 cm Week 3 to 2 = 8 cm – 6 cm = 2 cm Week 2 to 1 = 6 cm – 5 cm = 1 cm **Ans: The plant adds an extra cm of growth each week.** 

SECTION 3

37.	16 posts = 15 spaces 3 rolls of chain-link x 20 m = 60 m Length of wire between each post = 60 ÷ 15 = 4 metres Spaces between 2nd and 6th posts = 6 – 2 = 4 spaces Length of wire used between 2nd and 6th posts = 4 spaces x 4 m = 16 m **Ans: 16 m**
38.	37. 1 kg = 1 000 g Weight of the bag of dog food in grams = 33.6 x 1 000 = 33 600 g Amount of food Rashma fed her dog each day = 400 g x 2 meals = 800 g Number of days it takes to finish one bag of dog food = 33 600 g ÷ 800 g = 42 days Number of weeks it takes to finish one bag of dog food = 42 ÷ 7 days = 6 weeks **Ans: 6 weeks**

39.	A square, rectangle, or rhombus can be used once length does not exceed 6 cm. **Ans:**  (choose any 1)
40.	Pattern increases by $1.00 daily. Monday = $3 Tuesday = $3 + $3 = $6 Wednesday = $6 + $4 = $10 Thursday = $10 + $5 = $15 Friday = $15 + $6 = $21 **Ans:** 

SECTION 1

1.

Thousands	Hundreds	Tens	Ones
6	0	2	3

Ans: 6 023

2.

Ones		Tenths	Hundredths
3	.	7	9

The hundredths digit is equal to or more than 5 so the tenths digit increases by 1.
Ans: 3.8

3. (15 x 3) + 4 = 45 + 4 = 49

$\frac{49}{15}$

Ans: $\frac{49}{15}$

4. Sum of the coins shown
= 10¢ + 10¢ + 5¢ + 5¢ + 1¢ + 25¢
= 56¢
Sum of the missing coins
= 71¢ – 56¢ = 15¢
15¢ = 10¢ + 5¢
Values of the missing coins
= 5¢ and 10¢
Ans: 5¢ and 10¢

5. $\frac{80}{\cancel{100}}$ x $\frac{\cancel{200}}{1}$ = 80 x 2 = 160
Ans: 160

6. $2 400.00 – $1 900.00 = $500.00
Ans: $500.00

7. $\frac{2}{5} = \frac{4}{10}$ = 0.4
Ans: 0.4

8. 1.75 ÷ 7 = 0.25
Ans: 0.25

9. Number of tops
= 8 x 13 = 104 tops
Number of tops remaining
= 104 – 30 = 74 tops
Ans: 74 spinning tops

10. $9^2 = 9 \times 9 = 81$
$2^3 = 2 \times 2 \times 2 = 8$
81 + 8 = 89
Ans: 89

11. Length of the movie
= hr min

10^{-1}	15^{+60}
9	75
– 8	52
1	23

Ans: 1 hour and 23 minutes

12. 1 m = 100 cm
Length of the table
= 3.4 m x 100 = 340 cm
Ans: 340 cm

13. Number of cubes in object
= L x W x H
= 3 x 3 x 2 = 18 cubes

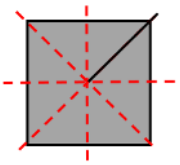
Volume of object
= 18 cubes x 8 cm^3 = 144 cm^3
Ans: 144 cm^3

14.

g	mg
5	350
x	6
30^{+2}	$\cancel{2}100$
32	100

= 32 g 100 mg
Ans: 32 g 100 mg

15. **Ans:**



16. **Ans: Two 90° angles**

17. **Ans: 2 pairs of equal sides**

18.	Total number of goals scored = 2 + 4 + 5 + 1 + 3 + 3 = 18 goals Mean = Total number of goals scored ÷ Number of games = 18 ÷ 6 = 3 goals **Ans: 3 goals**

19.	**Ans: 3 students**
20.	**Ans: Company B**

SECTION 2

21.	Weekly wage = \$9 600.00 ÷ 4 months = \$2 400.00 Hourly rate of pay = \$2 400.00 ÷ 40 = \$60.00 per hour **Ans: \$60.00 per hour**
22.	Fraction of the cloth used to make shirts and pants = $\frac{2}{5} + \frac{1}{4}$ LCM of 4, 5 = 20 $\frac{2}{5} = \frac{8}{20}$ $\frac{1}{4} = \frac{5}{20}$ $\frac{8}{20} + \frac{5}{20} = \frac{13}{20}$ Fraction of the cloth remaining $= \frac{20}{20} - \frac{13}{20} = \frac{7}{20}$ Length of cloth remaining $= \frac{7}{\cancel{20}\ 1} \times \frac{\cancel{60}\ 3}{1}$ = 7 x 3 = 21 m **Ans: 21 m**
23.	Number of marks Ryan scored $= \frac{\cancel{65}\ 13}{\cancel{100}\ 20} \times \frac{80}{1} = = \frac{13}{\cancel{20}\ 1} \times \frac{\cancel{80}\ 4}{1}$ 13 x 4 = 52 marks Number of marks Luke scored = 52 + 12 = 64 marks Percent of the marks Luke scored $= \frac{64}{\cancel{80}} \times \frac{\cancel{100}}{1}$ = 640 ÷ 8 = 80% **Ans: 80%**

24.	Numbers between 40 and 60 are 42, 47 and 53. The prime numbers are 47 and 53. Half of 98 = 98 ÷ 2 = 49 47 < 49 **Ans: 47**
25.	Number of beads in each pattern = 7 + 5 = 12 beads Number of patterns of beads = 60 ÷ 12 = 5 patterns of beads Number of red beads = 5 x 5 = 25 red beads **Ans: 25 red beads**
26.	Number of markers Yasmin has = 24 ÷ 2 = 12 markers Number of markers Lisa has = 12 + 4 = 16 markers Number of markers they have altogether = 24 + 12 + 16 = 52 markers **Ans: 52 markers**
27.	$\frac{2}{\cancel{5}\ 1} \times \frac{\cancel{100}\ 20}{1}$ = 2 x 20 = 40% 0.03 x 100 = 3% 40% + 3% + 25% = 68% 68% = $\frac{68}{100}$ when reduced by 4 = $\frac{17}{25}$ **Ans:** $\frac{17}{25}$
28.	$\sqrt{144}$ = 12 1 512 ÷ 12 = 126 **Ans: 126**

29. Length of one side of the big square
= $\sqrt{\text{Area}}$ = $\sqrt{100}$ = 10 cm
Length of one side of the small square = 10 cm ÷ 2 = 5 cm

Perimeter of each of the smaller squares = Side x 4
= 5 cm x 4 = 20 cm
Ans: 20 cm

30. 30 days in the month
4 Sundays + 4 Saturdays + 1 weekday holiday = 9
Days Justin works = 30 – 9 = 21 days
Ans: 21 days

31. Total length of time the concert lasted
= hr min
11 55
– 8 05
3 50 3 hours 50 minutes

$1\frac{3}{4}$ hours = 1 hr 45 mins

Total length of time the 2 halves of the concert lasted
= hr min
1 45
x 2
2^{+1} 90^{-60}
3 30 3 hours 30 mins

Total length of time the intermission lasted
= hr min
3 50
– 3 30
20
Ans: 20 minutes

32. Weight of Book B
= kg g
7 200
+ 2 250
9 450

Combined weight of books
= kg g
7 200
+ 9 450
16 650
Ans: 16 kg 650 g

33. **Ans:**

Solid	Number of Faces	Number of Edges	Number of Vertices
Square-based pyramid	**5**	**8**	**5**

34. **Ans: The cross-section of a solid is the inner surface of the solid when it is cut in half. A cylinder has a circular cross section.**

35. Number of values
= Sum of values ÷ Mean
Number of subjects Makena wrote
= 680 ÷ 85 = 8 subjects
Number of subjects Obasi wrote
= 644 ÷ 92 = 7 subjects
Ans: Obasi

36. Total number of points gained from losses = 3 x 0 = 0 points

Total number of points gained from draws = 6 x 1 = 6 points

Total number of points gained from wins = 9 x 3 = 27 points

Total number of points the team earned = 0 + 6 + 27 = 33 points
Ans: 33 points

SECTION 3

37.	Total number of figs = 18 x 4 = 72 figs Number of figs sold = 40 + 12 = 52 figs Number of figs remaining = 72 – 52 = 20 figs Fraction of the figs remaining = $\frac{20}{72}$ when reduced by 4 = $\frac{5}{18}$ **Ans: $\frac{5}{18}$**
38.	1 m = 100 cm Length of 1 sheet of bristol board = 100 m x 3 = 300 cm Width of 1 sheet of bristol board in = 100 m x 2 = 200 cm Number of invitations Avion can get from 1 sheet of bristol board = $\frac{\text{Area of the sheet of bristol board}}{\text{Area of a wedding invitation}}$ = $\frac{\text{Length x width}}{\text{Length x width}} = \frac{\cancel{300}\ 6 \times \cancel{200}\ 5}{\cancel{50}\ 1 \times \cancel{40}\ 1}$ = 6 x 5 = 30 wedding invitations Number of sheets of bristol board required to make all the invitations = 360 ÷ 30 = 12 sheets of bristol board **Ans: 12 sheets of bristol board**

39.	(a) **Ans: 1 pair** (b) **Ans: Angles P, Q and R** (c) **Ans: Angles R and S**
40.	Total of the 1st set of numbers = 18 + 24 = 42 Mean of the 1st set of numbers = 42 ÷ 2 = 21 Total of the 2nd set of numbers = Mean x Number of numbers = 21 x 3 = 63 Value of the missing number = 63 – (19 + 32) = 63 – 51 = 12 **Ans: 12**

SECTION 1

1.

Mill	Hund Thou	Ten Thou	Thou	Hund	Tens	Ones
1	6	0	0	0	2	9

Ans: 1 600 029

2.

Tens	Ones		Tenths	Hundredths
1	0	.	4	5

Hundredths digit is equal to or more than 5 so the tenths digit increases by 1.

Ans: 10.5

3.

Method 1

$\frac{1}{6}$ = 40

$\frac{6}{6}$ = 40 x 6 = 240

Method 2

40 ÷ $\frac{1}{6}$ = $\frac{40}{1}$ x $\frac{6}{1}$ = 240

Ans: 240

4.

$\frac{\cancel{5}\ 1}{\cancel{20}\ 4} = \frac{1}{4}$

Ans: $\frac{1}{4}$

5.

Ones		Tenths	Hundredths
0	.	2	2
2	.	2	0
2	.	1	0
0	.	2	1

Ans: 2.2

6.

25% = $\frac{1}{4}$

Number of activities completed

= $\frac{1}{\cancel{4}\ 1}$ x $\frac{\cancel{320}\ 80}{1}$ = 80

Ans: 80 activities

7.

35 ÷ 8 = 4 remainder 3

$\frac{35}{8} = 4\frac{3}{8}$

Ans: $4\frac{3}{8}$

8.

Fraction of goals scored = $\frac{2}{6} = \frac{1}{3}$

Ans: $\frac{1}{3}$

9.

Price after discount

= $5 000 – $499 = $4 501

Ans: $4 501.00

10.

3 652
– 3 089
563

Ans: 6

11.

Perimeter of the door

= (Length + Width) x 2

= (6 m + 3 m) x 2

= 9 m x 2 = 18 m

Ans: 18 m

12.

Length of one side

= $\sqrt{\text{Area}}$ = $\sqrt{144}$ cm^2 = 12 cm

Length of 4 sides

= 12 cm x 4 = 48 cm

Ans: 48 cm

13.

60 minutes = 1 hour

120 minutes = 120 ÷ 60 = 2 hours

Ans: 2 hours

14.

Students drank: 100% – 10% = 90%

$\frac{\cancel{90}}{\cancel{100}}$ x $\frac{5}{1}$ = $\frac{9}{\cancel{10}\ 2}$ x $\frac{\cancel{5}\ 1}{1}$

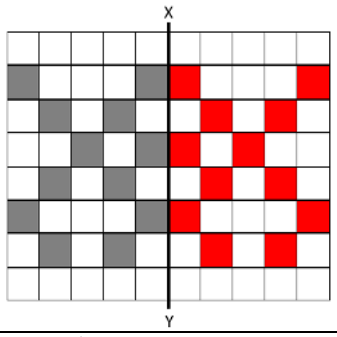
= $\frac{9}{2} = 4\frac{1}{2}$ litres = 4.5 litres

1 litre = 1 000 millilitres

Students drank 4.5 litres

= 4.5 L x 1 000 = 4 500 ml

Ans: 4 500 ml

15.	**Ans:** 
16.	Four $\frac{1}{4}$ turns = 1 whole turn. The hour hand returns to the same position, 6. **Ans: 6**
17.	**Ans: Cone**

18.	Total number of fish caught = (6 + 7 + 4) x 3 = 17 x 3 = 51 fish **Ans: 51 fish**
19.	Mean = sum of items ÷ number of items = (152 + 75 + 102 + 99) ÷ 4 = 428 ÷ 4 = 107 **Ans: 107**
20.	The mode or most frequent number is 13. **Ans: 13**

SECTION 2

21.	Add whole numbers. 4 + 2 = 6 Add fractions. $\frac{1}{4} = \frac{2}{8}$ $\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$ Add whole numbers and fractions. $6 + \frac{5}{8} = 6\frac{5}{8}$ **Ans: $6\frac{5}{8}$**
22.	Number of songs Vivek has = 437 – 39 = 398 songs Number of songs altogether = 437 + 398 = 835 songs **Ans: 835 songs**
23.	Total number of paintings needed = 36 – 12 = 24 Percent of paintings needed $= \frac{\cancel{24}\ 2}{\cancel{36}\ 3} \times \frac{100}{1} = \frac{200}{3} = 66\frac{2}{3}\%$ **Ans: $66\frac{2}{3}\%$**

24.	Number of sacks of cement needed for 6 houses = 1 341 x 6 = 8 046 sacks of cement Number of pallets needed = 8046 ÷ 50 = 160 rem 46 **Ans: 161 pallets of cement.** **The builder can only buy the cement in pallets of 50 sacks, not single sacks. A full pallet therefore needs to be bought to complete the job, although there would be sacks remaining.**
25.	Cars that are not red = 125 – 45 = 80 cars Percent of toy cars that are not red $= \frac{80}{\cancel{125}\ 5} \times \frac{\cancel{100}\ 4}{1} = \frac{\cancel{80}\ 16}{\cancel{5}\ 1} \times \frac{4}{1}$ = 16 x 4 = 64% **Ans: 64%**

26.

Number of 2-seater chairs = 13
Number of seats = 13 x 2 = 26
Number of remaining seats
= 32 – 26 = 6 seats
Number of 3-seater chairs
= 6 ÷ 3 = 2 3-seater chairs
Ans: 2 3-seater chairs

27.

40% = $\frac{40}{100}$ = 40 ÷ 100 = 0.40 or 0.4

15% = $\frac{15}{100} = \frac{3}{20}$

$\frac{1}{\cancel{8}\ 2} \times \frac{\cancel{100}\ 25}{1} = \frac{25}{2} = 12\frac{1}{2}$ % or 12.5%

Ans:

Fraction	Decimal	Percentage
$\frac{2}{5}$	**0.4**	40%
$\frac{3}{20}$	0.15	15%
$\frac{1}{8}$	0.125	**$12\frac{1}{2}$ % or 12.5%**

28.

Loss
$= \frac{12}{\cancel{100}\ 4} \times \frac{\cancel{625}\ 25}{1} = \frac{\cancel{12}\ 3}{\cancel{4}\ 1} \times \frac{25}{1}$
= 3 x 25 = $75

Selling price of watch
= $625 – $75 = $550
Ans: $550.00

29.

Weight of 3 grapefruits
= 600 g x 3 grapefruits = 1 800 g

1 000 g = 1 kg
1 800 g = 1 800 ÷ 1 000 = 1.8 kg

Weight of watermelons
= 8 kg – 1.8 kg = 6.2 kg
Weight of 1 watermelon
= 6.2 kg ÷ 2 watermelons = 3.1 kg

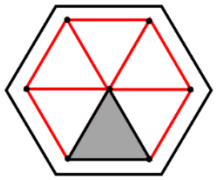
3.1 kg rounded off to nearest kg
= 3 kg
Ans: 3 kg

30.

1 km = 1000 m
230 m = 230 ÷ 1000 = 0.23 km
Route A
= 1.2 km + 0.23 km + 0.65 km
= 2.08 km

Route B
= 0.82 km + 1.15 km = 1.97 km
Jaheem will reach to the health centre faster using Route B as it is shorter.
Ans: Route B

31.



Ans:
First, the workman needs to determine how many tiles are needed. The floor is shaped like a hexagon, therefore 6 tiles would be needed.
Next, the workman needs to determine the length of border needed.
Length of 1 side of a triangular tile = 80 cm.
Length of border for 1 tile = 80 cm x 3 = 240 cm.
Total length of border = 240 cm x 6 tiles = 1 440 cm or 14.4 m.

32.

Length of the container
= 2 cm x 4 = 8 cm
Width of the container
= 2 cm x 3 = 6 cm
Height of the container
= 2 cm x 5 = 10 cm

Number of cubes the container can hold when full

$$= \frac{\text{Volume of container}}{\text{Volume of cube}}$$

$$= \frac{\text{Length x Width x Height}}{\text{Side x Side Side}}$$

$$= \frac{8 \text{ cm x } 6 \text{ cm x } 10 \text{ cm}}{2 \text{ cm x } 2 \text{ cm x } 2 \text{ cm}}$$

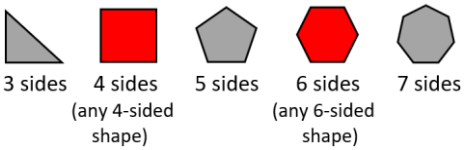
= 4 x 3 x 5 = 60 cubes

Number of cubes currently in the container
Base = 4 cubes x 3 = 12
Height = 4 cubes x 4 = 16
Total = 12 + 16 = 28 cubes

Number of cubes required to fill the rest of the container
= 60 – 28 = 32 cubes
Ans: 32 cubes

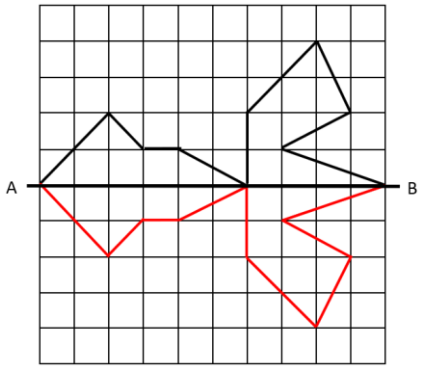
33.

Pattern: Number of sides increase by 1.
Ans:



34.

Ans:



35.

Number of employees that ordered lunches
= 10 + 12 + 4 = 26

Method 1
$\frac{2}{3}$ of the employees = 26 employees
Total number of employees
$= \frac{26}{1} \div \frac{2}{3} = \frac{\cancel{26}\ 13}{1} \times \frac{3}{\cancel{2}\ 1}$
= 13 x 3 = 39 employees

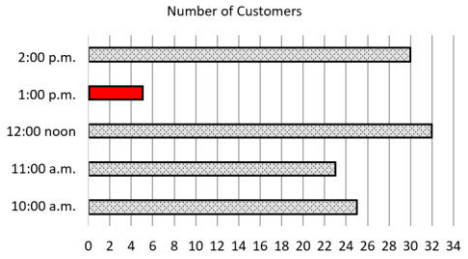
Method 2
$\frac{2}{3}$ = 26 employees

$\frac{1}{3}$ = 26 ÷ 2 = 13 employees

$\frac{3}{3}$ = 13 x 3 = 39 employees
Ans: 39 employees

36.

$0.20 = \frac{1}{5}$
10:00 a.m. = 25 customers
1:00 p.m. = $\frac{1}{\cancel{5}\ 1} \times \frac{\cancel{25}\ 5}{1}$ = 5 customers
Ans:



It will take the longest to be served at 12 noon as there would be the highest number of customers waiting in line.

SECTION 3

37.

Cost of 9 pencils
= $2.00 x 9 = $18.00

Money spent excluding 9 pencils
= $258.00 – $18.00 = $240.00

Cost of 1 pen and 1 pencil
= $6.00 + $2.00 = $8.00

Number of pens and pencils bought
= $240 ÷ $8 = 30 each

Number of pencils bought
= 30 + 9 = 39 pencils
Ans: 39 pencils

38.

Length of side X
= 40 m ÷ 2 = 20 m
Total length farmer fenced
= 40 m + 40 m + 20 m = 100 m

1 post is used at the beginning.
21 posts – 1 post = 20 spaces

Distance between each post
= 100 m ÷ 20 spaces = 5 m
Distance between every 2 posts
= 5 m x 2 = 10 m
Ans: 10 m

39.

Ans:

Solid	Properties
Triangular based pyramid	4 triangular faces, 6 edges
Cone	1 vertex
Triangular Prism	9 edges
Cylinder	2 edges

40.

(a)
Number of points scored in the red hoop = 4 x 2 = 8 points
Number of balls thrown through the green hoop = 33 ÷ 3 = 11
Number of points scored in the blue hoop = 5 x 4 = 20 points
Ans:

Colour Hoop	Points Awarded	Tally	Points Scored
Red	2	IIII	**8**
Green	3	𝍸 𝍸 I	33
Blue	4	𝍸	**20**

(b)
Ans: The green hoop