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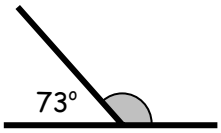
1. Given the acrobat picture.

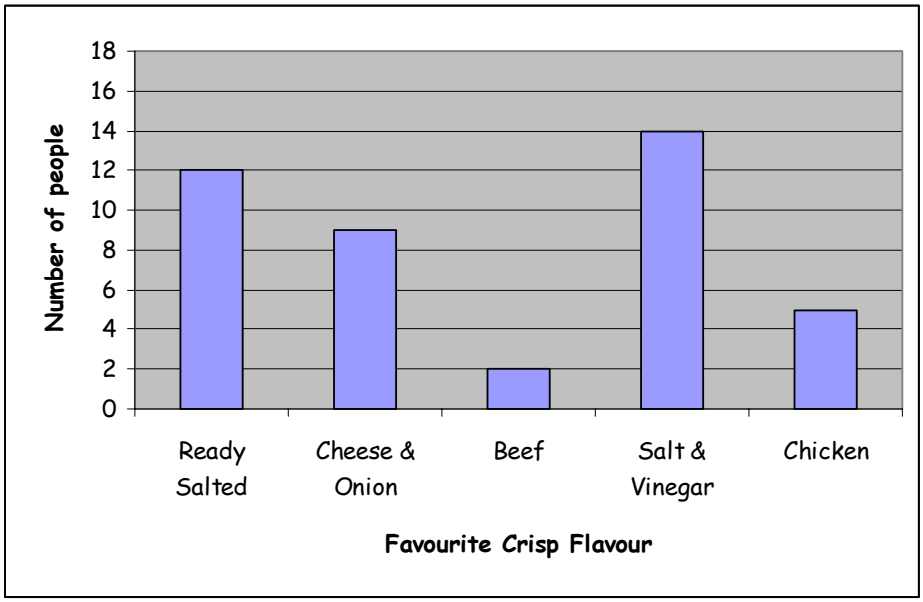


The size of the shaded angle is

$180° - 73° = 107°$

2. Using the table to complete the bar chart we have:

Favourite Crisps flavour	Number of people
Ready Salted	12
Cheese & Onion	9
Beef	2
Salt & Vinegar	14
Chicken	5



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3. (a) Given the candle holder design diagram we can complete the table by adding on 4 each time.

Number of link sections	1	2	3	4	5	6		11
Height of candle holder	6	10	14	18	22	26		46

(b) Steps for working out the rule:

4 x 3 + 2 = 14

1. Difference is 4
2. Part of rule is 4L
3. Correction factor, so that the rule works is, add on 2

Full rule is: $S = 3L + 2$

4. Given the strips can have the combination of:

- A round neck or a V-neck
- Long sleeve or short sleeve
- A plain body or striped body

5 other possible combinations are: (there are more !)

Neck	Sleeves	Body
V	Short	Striped
V	Short	Plain
V	Long	Striped
V	Long	Plain
R	Short	Striped
R	Short	Plain

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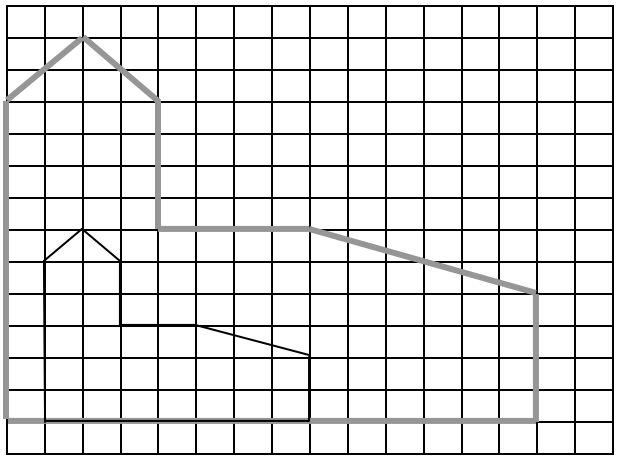
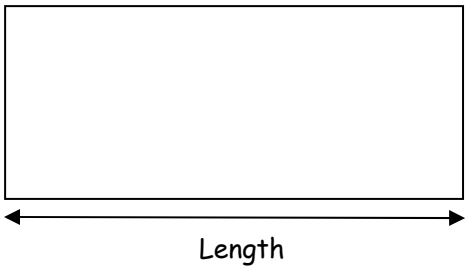
5. Enlarging the diagram so it is twice as long we have:



6. Give the plan of the school hall.



(a) The length of the hall on the plan is 8.6cm.

(b) Given the scale is 1 cm = 5 m. the actual length of the hall is

$$\begin{array}{r} 8.6 \\ \times\ 5 \\ \hline 43.0 \\ \hline 3 \end{array}$$

length is 43m

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6. (c) Measuring breadth on the plan we get: 6 cm

Actual breadth is : $6 \times 5 = 30$ m

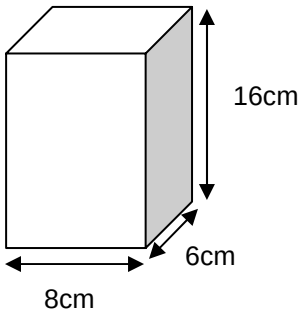
Therefore area is:

Area = length $\times$ breadth
= 43 $\times$ 30
= 1290 m^2

7. Given the jobs list and times we can complete the table as follows:

	9 am	10 am	11 am	noon	1 pm	2 pm	3 pm	4 pm	5 pm
Sam	Job 3	Job 3	Job 4	Lunch	Job 2	Job 5	Job 5	Job 5	
Jo	Job 3	Job 3	Job 1	Job 1	Lunch	Job 5	Job 5	Job 5	

8. Given the diagram we can work out the volume of the cuboid.



Volume = length $\times$ breadth $\times$ height
Volume = 8 $\times$ 6 $\times$ 16
Volume = 768 cm^3

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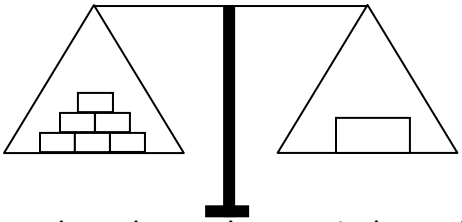
9.



(a) Given that the scales are balanced and there are 6 identical small parcels on one side and a large parcel weighing 1.8 kg on the other.

Each small parcel must weigh:

1.8 kg = 1800g

$6\overline{)1^{1}800}$ $\begin{array}{r}300\\ \\ \end{array}$ each parcel is 300g or 0.3kg

(b)

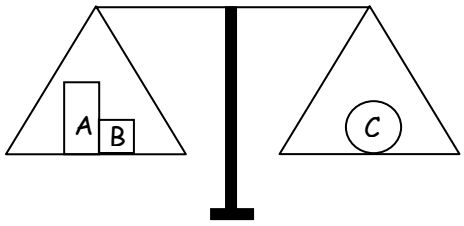


Diagram 1

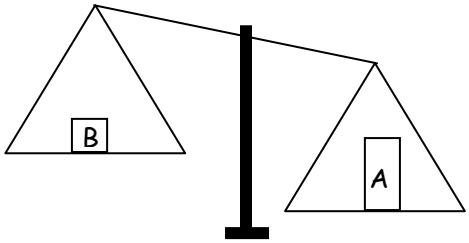


Diagram 2

From the first diagram, since scales are balanced then parcel C must be the heaviest.

From the second diagram, see can see that parcel A is lower than parcel B therefore parcel A is heavier than parcel B.

Heaviest parcel C.
Next parcel B.
Lightest parcel A.

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10. Given there is £394 in the bank and the interest is 7% per year. Then in one year she will receive in interest:

$$\frac{7}{100} \times £394 = £27.58$$

OR

1% of £394 = £394 ÷ 100 = £3.94
7% of £394 = 7 x £3.94 = £27.58

11. Given the table:

Daytime Rate 8am-6pm Mon-Fri	3.5p per minute
Cheap Rate (all other times)	1p per minute

(a) The cost between 4.30pm and 5.30pm is:
Difference in time is 1 hour
1 hour = 60 mins

Total cost = 3.5p x 60
= 3.5 x 10 x 6
= 35 x 6

$$\begin{array}{r} 35 \\ \times\ 6 \\ \hline 210 \\ \hline 3 \end{array}$$

equals 210p or £2.10

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11. (b) Given the Gold Card cost £14.99 for unlimited use.

Cost of 30 hours at cheap rate is:

30 hours = 30 x 60 = 1800 minutes

Cost of 1800 minutes at 1p is 1800p or £18.00

Jamie saved £18.00 - £14.99 = £3.01 using the Gold Card

12. Given Freshdent usually contains 240ml.

If it contains a $\frac{1}{3}$ extra it will contain:

$3\overline{)240}$ $\quad 80$ $\quad$ 240 + 80 = 320ml

13. Given the rule:

Cost = £25 + (number of days $\times$ £14.50)

(a) Cost of hiring a car for 6 days will be:

$$\begin{array}{r} 14.50 \\ \times 6 \\ \hline 87.00 \end{array}$$

£25 + £87= £112

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13. (b) Given he has £300 to spend on car hire, then he will be able hire it for:

£300 - £25 =£275 £275 ÷14.50 = 18.96

He will be able to hire car for 18 days