

Ysgol Uwchradd Caergybi

Mathematics Department

Homework Pack

Year 8 Module 7

Foundation

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Name

Class Teacher

Name

Units

$$\frac{\dots}{15} \times 100 = \dots\%$$

1. Which metric unit would you use to measure the following ? [4]

- a. The distance from Holyhead to Cardiff
- b. The length of a school exercise book
- c. The weight of a horse
- d. The volume of a bath

2. Complete the following table



x Multiply

[5]

Help

1kg = 1000g
 1m = 100cm
 1cm = 10mm

3kg g
7000g kg
4m cm
200cm m
5cm mm

3. Add the following units SET YOUR WORK OUT FULLY [2]

a. 3.5kg + 2.5kg

+			
<hr/>			

b. 125cm + 67cm

+			
<hr/>			

[2]

c. 13.7m + 3.4m

+			
<hr/>			

[2]

To improve I need to

Name

Ratios

$$\frac{\dots}{10} \times 100 = \dots\%$$

1. There are 80 boys and 60 girls in Ysgol Nant

[2]

a. Write this as a ratio :

b. Rewrite this as a ratio in its simplest form :

2. Alun and Berwyn share £200 in the ratio 4 : 6.

[3]

How much does

a. Alun receive?

b. Berwyn receive?

Working out

.....
.....
.....

3. To make bolognaise for 3 people you need

2 kg of mince beef

How much mince is needed to make

[3]

a. 6 people?

b. 12 people?

Working out

.....
.....
.....

4. A Map has a scale of 1 cm : 5km.

Find the actual distance between

[2]

a. Bangor to Aberystwyth – 3 cm

b. Liverpool to Caerdydd – 6cm

To improve I need to

1. Mrs Cabbage made a survey of the number of pieces of fruit 9 pupils from class 8.A had in the last week

3 10 7 1 3 6 9 11 4

- a. Work out the mean value [3]
- b. Write down the mode [1]
- c. Find the median [2]
- d. Work out the range [1]

2. Complete the following poem [6]

Hey diddle diddle, the the middle,
 You then **divide** for the mean.
 The is the one that you see the
 And the is the between

3. The marks obtained by Colin in eight subjects were as follows. *You will need to use a calculator*

66 45 59 55 65 45 72

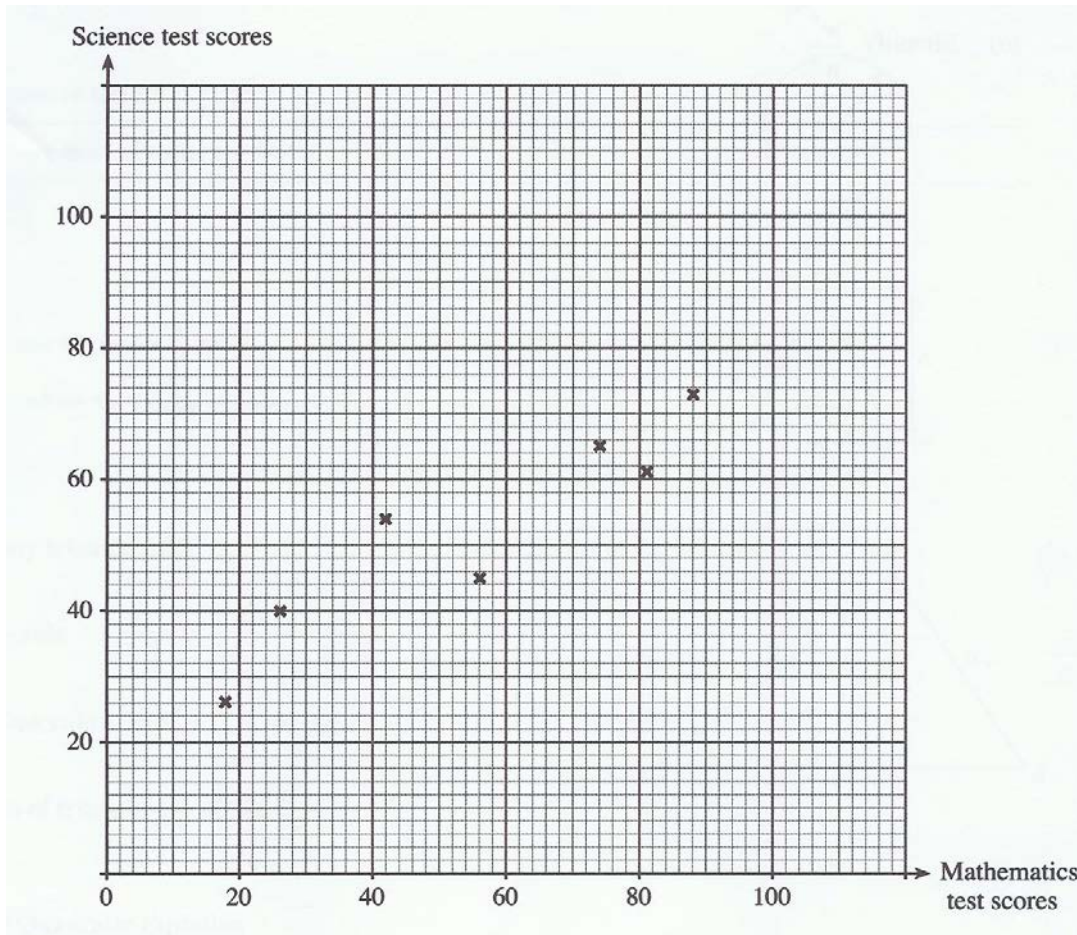
- a. Find the mean of these eight marks. [3]
- b. Find the range of the marks. [1]
- c. Write down the mode [1]
- d. Find the median mark. [2]

To improve I need to

1. The table shows the scores obtained by 7 pupils in a mathematics test and their corresponding scores on a science test.

Mathematics test scores	18	74	56	26	88	81	42
Science test scores	26	65	45	40	73	61	54

The scatter diagram illustrates these results.



a) Draw a line of best fit on your scatter diagram. [1]

b) What type of correlation does this show [1]

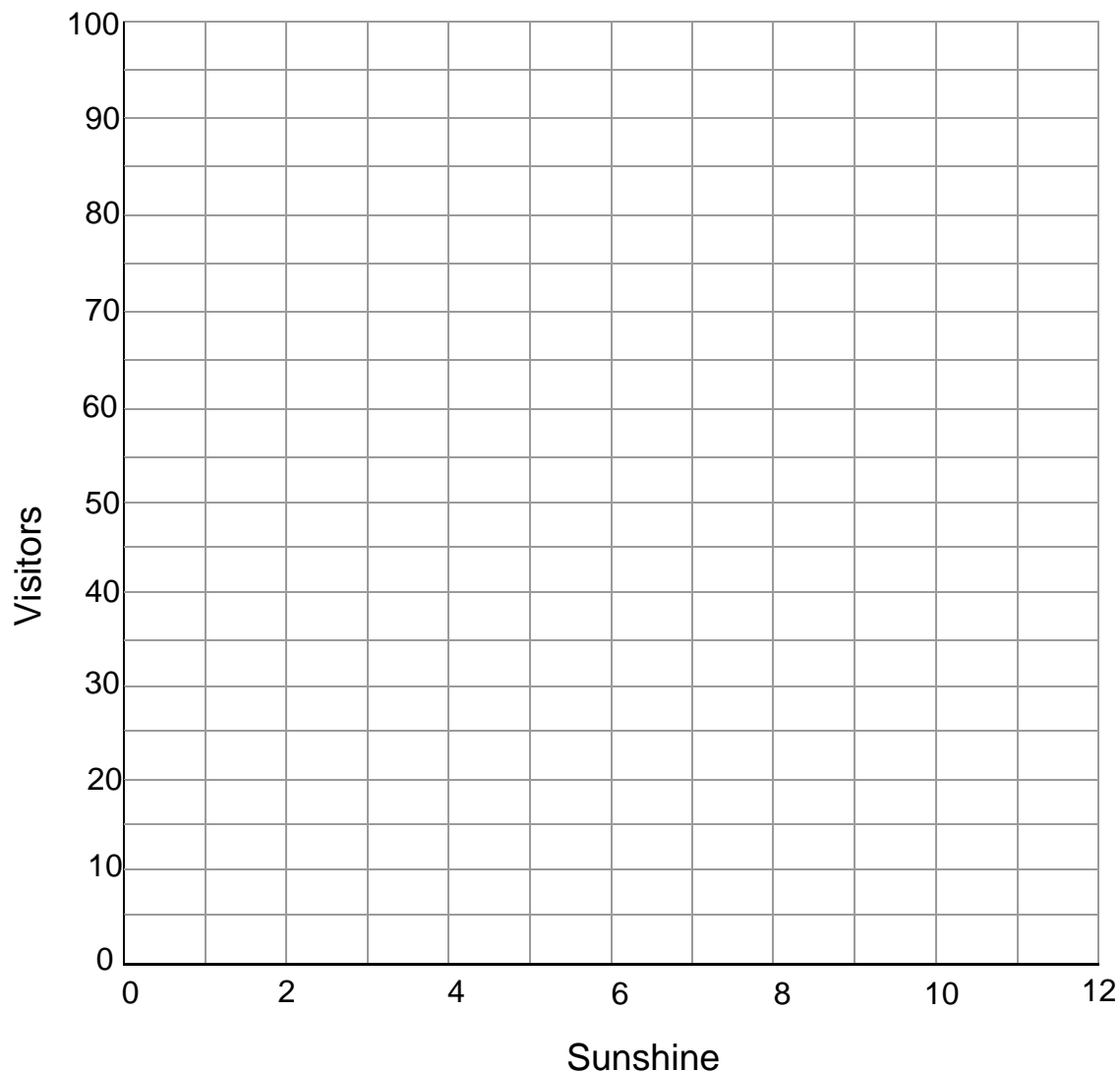
c) John sat the mathematics test and had a score of 68, but he was absent from the science test. Use your line of best fit to find an estimate for John's score on the science test.

..... [2]

2) The number of visitors to a nature park and number of hours of sunshine were recorded each Saturday for 6 weeks. The table below shows the results.

Hours of Sunshine	2	5	1	7	4	10
Number of Visitors	25	45	10	80	35	95

a) On the graph paper provided, draw a scatter diagram of these results. [3]



b) Describe the **correlation** between the number of hours of sunshine and the number of visitors to the nature park

..... [1]

(c) Draw a line of best fit on your scatter diagram. [1]

(d) Use your line of best fit to find an estimate for the **number of visitors** to the nature park on a day **with 6 hours of sunshine**. [1]

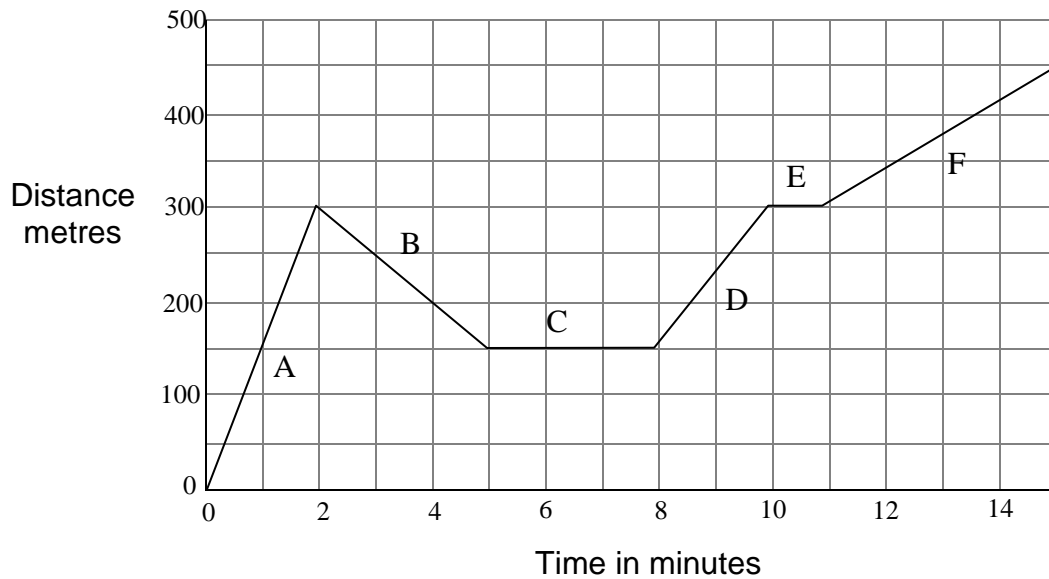
To improve I need to

Name

Distance – Time Graphs

$$\frac{\dots}{20} \times 100 = \dots\%$$

1. Look at the following graph and complete the following sentences below.



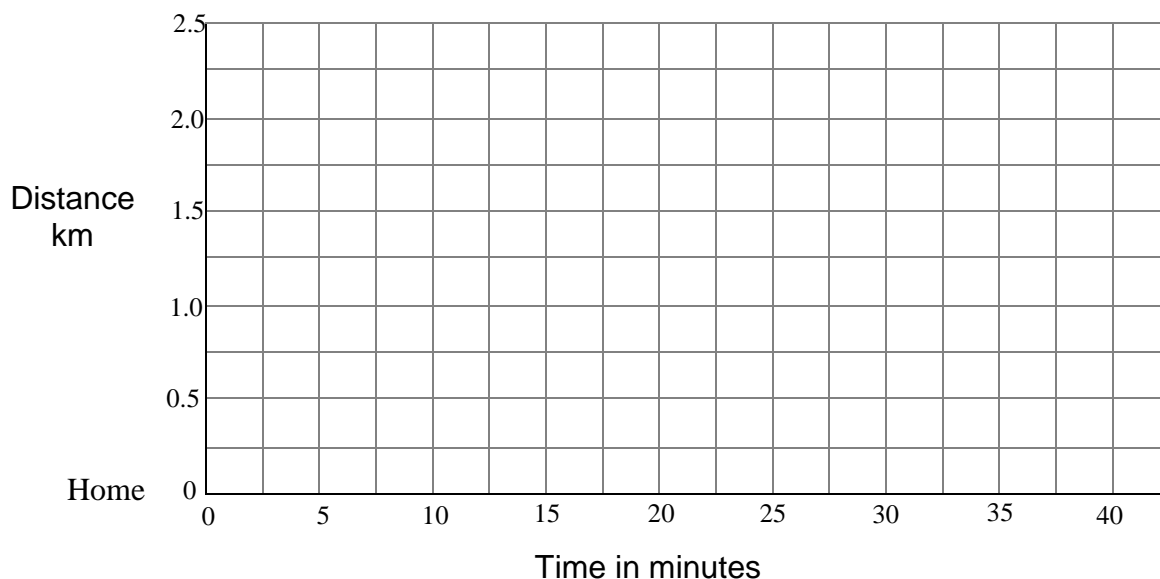
- a. Sian runs to the corner shop,metres in 2 minutes. [1]
- b. She realizes she forgot her money and walks towards home 150m inminutes. [1]
- c. She then runs to meet her friend in the park in for minutes. [1]
- d. They run to the shop
- e. How long do they spend in the shop ? [1]
- f. They walk together to the chippy,, metres in minutes. [2]

2. Mr Williams drives 120 miles in 2 hours, what is his speed in miles per hour (mph)

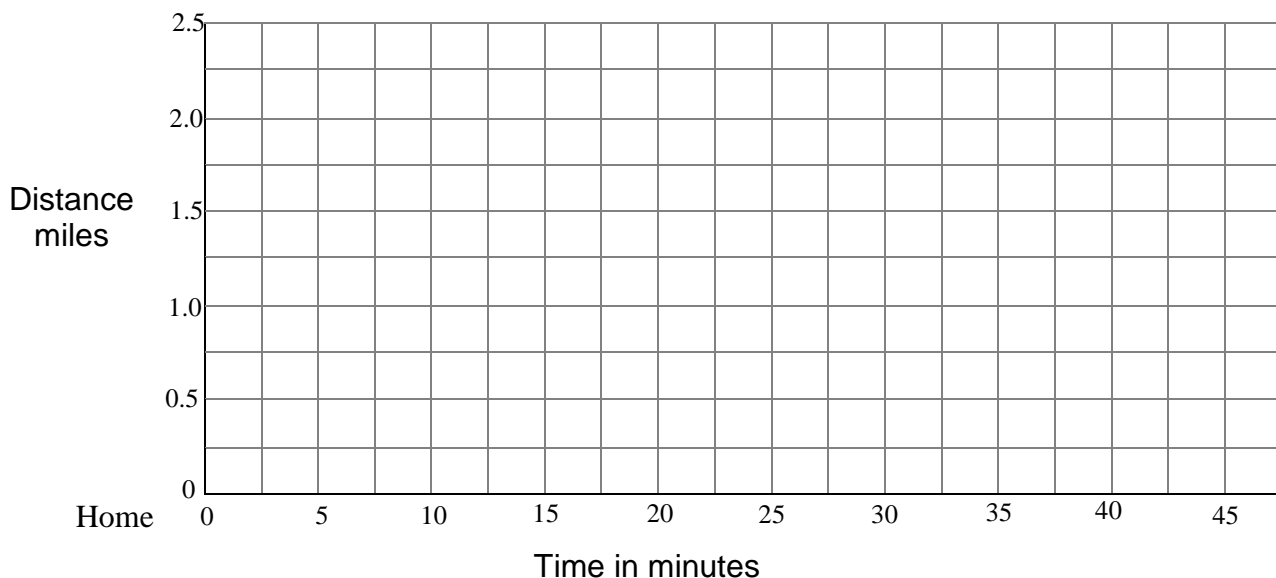
..... [2]

3. Draw distance time graphs of the following

- a. Danny leaves home at he walks **1km** to the Spar in **20 minutes**, [2]
 He stays in the shop for **5minutes**. [2]
 Danny then runs the **2km** to school in **15 minutes**. [2]



- b. Sian walks the **1mile** to town to meet her friends in **20 minutes** [2]
 She meets her friends in the café and stays there for **15 minutes** [2]
 She then runs the **1 mile home** in **10 minutes** . [2]



To improve I need to

Name

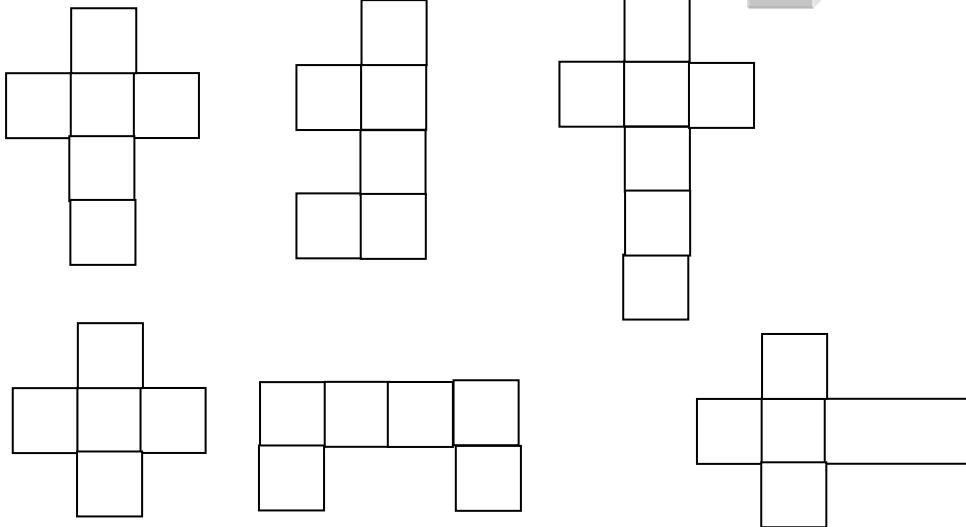
Nets

$$\frac{\dots}{10} \times 100 = \dots\%$$

1. Which of these are **nets** of a cube? Circle the correct answers



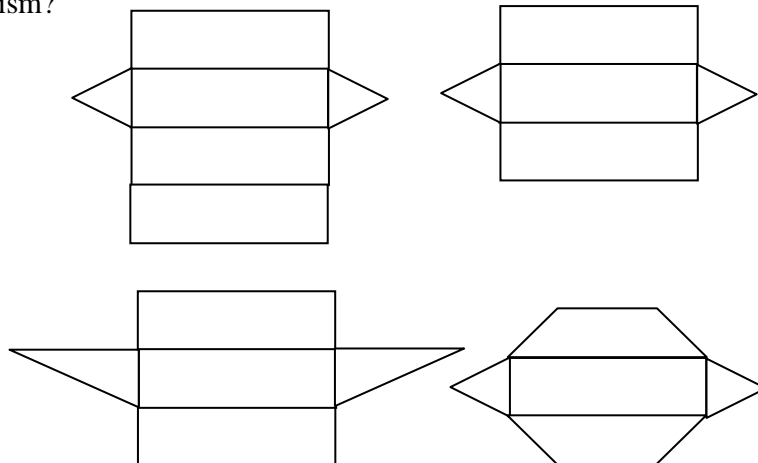
[2]



2. Circle the net of a triangular prism?



[1]

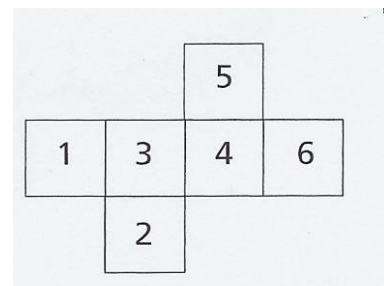


3. Imagine folding up this net to make a dice.

[2]

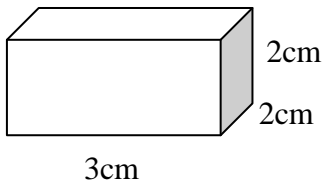
a. Which number will be opposite the 5?

b. Which number will be opposite the 6?



4. This is a matchbox box, draw an accurate net of the tray on squared paper.

[5]



To improve I need to

Name

Numeracy -1

$\frac{\dots}{100} \times 100 = \dots\%$

Complete the multiplication grid

X	1	2	3	4	5	6	7	8	9	10
1							7			
2							14			
3							21			
4							28			
5							35			
6							42			
7							49			
8							56			
9							63			
10							70			

1. 5^2 Answer

2. 8^2 Answer

3. 6^2 Answer

4. $\sqrt{49}$ Answer

5. $\sqrt{81}$ Answer

6. $\sqrt{64}$ Answer

[6]

7. Write down a square number between 80 and 100 Answer [2]

8. Write down a square number between 10 and 20 Answer [2]

To improve I need to

Name

Numeracy -2

$\frac{3}{20} \times 100 = \dots\%$

No working out No marks - Working out here

1.

$$\begin{array}{r} 376 \\ + 248 \\ \hline \\ \hline \end{array}$$

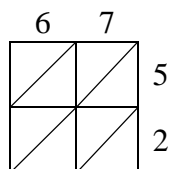
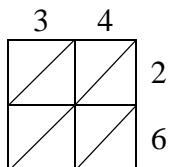
$$\begin{array}{r} 369 \\ + 586 \\ \hline \\ \hline \end{array}$$

2.

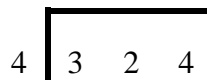
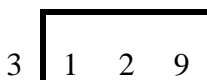
$$\begin{array}{r} 489 \\ - 258 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 573 \\ - 458 \\ \hline \\ \hline \end{array}$$

3.



4.



5. What number must be added to 78 to make 121?

Answer

6. What is the difference between 82 and 34

Answer

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