

**Holyhead High School
Ysgol Uwchradd Caergybi**

**Mathematics Department
Homework Pack**

**Year 7 Module 4
Foundation**

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Name

Class Teacher

Name

Negative Numbers

$\frac{\dots}{25} \times 100 = \dots\%$

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
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Circle the highest temperature

- a. -14°C or 2°C b. -5°C or 0°C c. -23°C or -24°C [3]

2. Write these temperatures in order, from the **smallest** to the largest [4]

- a. 15°C , -18°C , 0°C , -13°C , 21°C

- b. -7°C , -1°C , -4°C , 11°C , 0°C , 7°C

3. Use the correct sign > or <

- a. 7°C 1°C b. -1°C 5°C c. -12°C -3°C [3]

4. What's the difference between the following numbers [3]

- a. -3 and 7

- b. -12 and 0

- c. -18 and -7

5. Find the answers to (use the number line to help you) [6]

- a. $2 - 6$ c. $-6 - 2$ e. $14 - 15$

- b. $-5 + 4$ d. $-10 + 7$ f. $-15 + 9$

6. Find the value of *remember one - = - two - = +* [6]

- a. 3×-5 d. -10×-5

- b. -6×7 e. -13×2

- c. -20×-3 f. -5×-5

To improve I need to

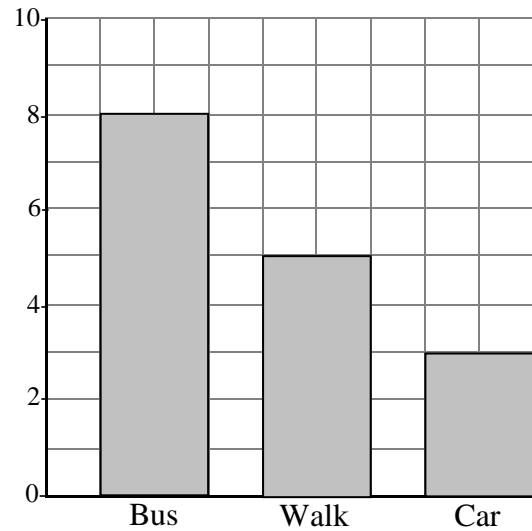
Name

Graphs

$$\frac{\dots}{30} \times 100 = \dots\%$$

1. The bar graph shows how the pupils from class 7.1 get to school.

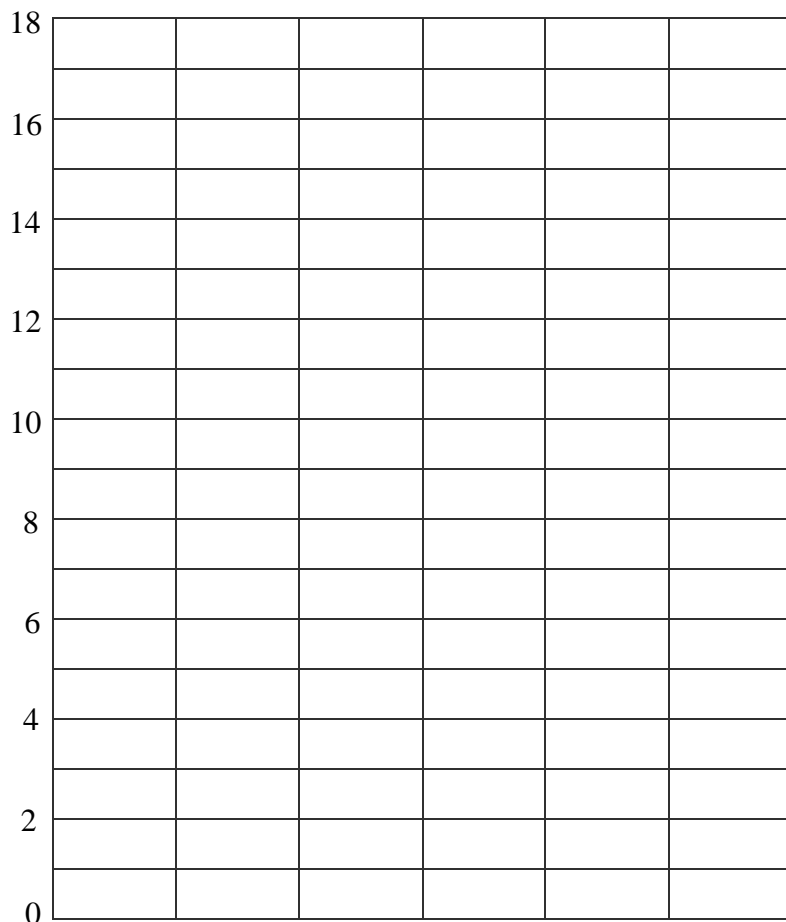
- a. How many people go by bus to school [1]
- b. How many people walk to school [1]
- c. How many people go by car to school [1]
- d. How many people are in the class? [2]



2. Use the information from the table to draw a bar graph.

Remember to label the graph correctly and use a ruler. [5]

'How Class 7.5 get to school'	Bus	Walk	Car
Number of pupils	11	16	6



3. The pictogram below shows the number of different types of crisps that a shop sells



= 20 packets

- a. How many prawn cocktail crisps were sold? [1]
- b. How many cheese & onion crisps were sold? [2]

Cheese & Onion	
Salt & Vinegar	
Prawn Cocktail	
Ready Salted	
Chicken	

c. What was the total number of crisps sold? [3]

4. Use the information below to draw a pictogram. Number of hours of Sunshine over Easter

Use to represent 2 hours [4]

Day of the week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Sunshine hours	8	5	10	7	9	4	3

Number of people in household	Number of hours of Sunshine
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

5. The following table shows the results of a PE survey.

A = Athletics

F = Football

N = Netball

G = Gymnastics

A	N	G	F	G
N	A	A	F	N
F	F	G	F	A
N	F	F	G	A

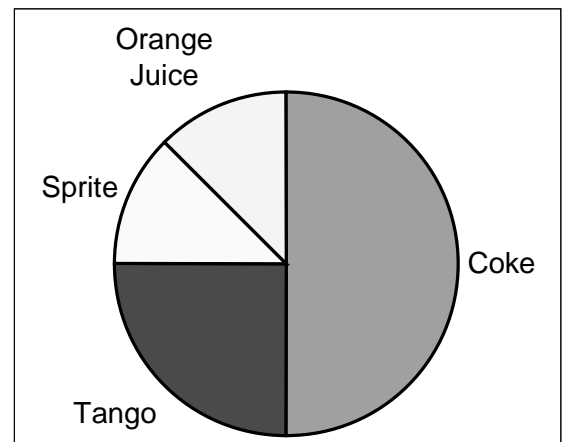
a. Complete the tally table .

[4]

Sport	Tally	Frequency
A		
F		
N		
G		

6. The pie chart shows the results of a survey of year 7 boys and their favourite drink.

20 Boys like Coke.



a. How many boys liked Tango ? [1]

b. How many boys liked Sprite ? [1]

c. How many boys liked Orange Juice ? [1]

d. How many boys were in the survey ? [2]

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Name

Algebra (2)

$\frac{\dots}{25} \times 100 = \dots\%$

1. RECAP - Simplify

a. $4a + 5a - 2a$ [1]

b. $2a + 5a + 4b + 3b$ [2]

2. RECAP - Use the following values and substitute into the expressions.

$a = 4 \quad b = 3 \quad c = 5$

a. $a + b - c$ [2]

b. $3a + 2b$ [2]

3. I'm thinking of a number

a. I add 6 to get 35 what number am I thinking of ? [1]

b. I subtract 8 to get 42 what number am I thinking of ? [1]

c. I multiply by 7 to get 21 what number am I thinking of ? [1]

d. I multiply a number by 3 and then add 6 to get 21
what number am I thinking of ? [3]

2. Solve the following. **You must show full workings out.** [12]

a. $x + 5 = 18$
.....

d. $3x = 30$
.....

b. $x - 3 = 20$
.....

e. $4x = 20$
.....

c. $x + 9 = 2$
.....

f. $5x = 30$
.....

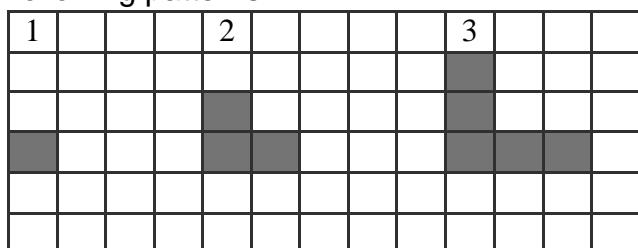
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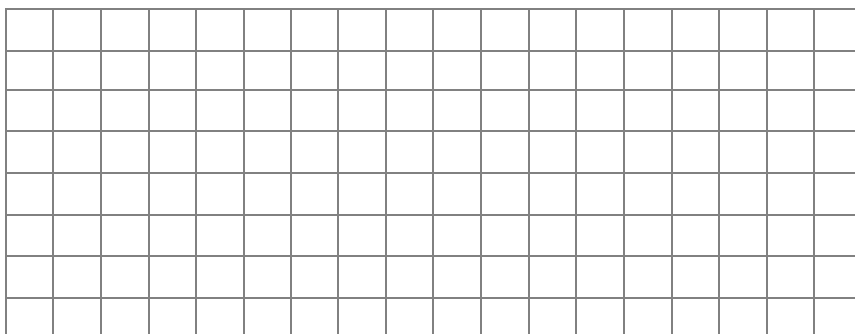
Sequences

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

Look at the following patterns



a. Draw the 4th and 5th pattern [4]



b. Complete the table. [3]

Pattern No	1	2	3	4	5
Number of Tiles	1	3

2. For each of the following number patterns

- a. Write the next two terms
- b. the rule to get from term to the next

i. 4, 7, 10,, rule [3]

ii. 3, 10, 17,, rule [3]

iii. 26, 21, 16,, rule [3]

3. Fill in the missing blanks

a. 3, 8, 13,, 28 [2]

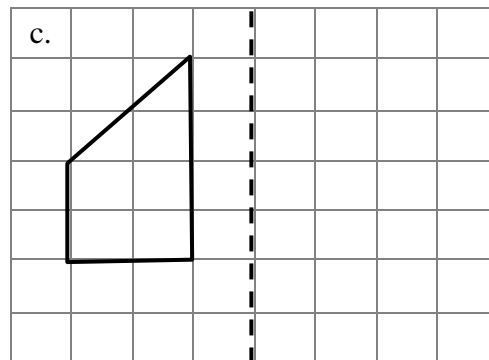
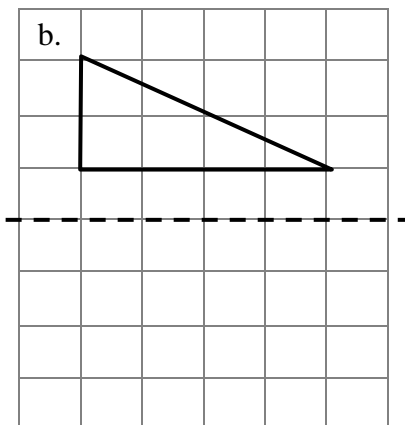
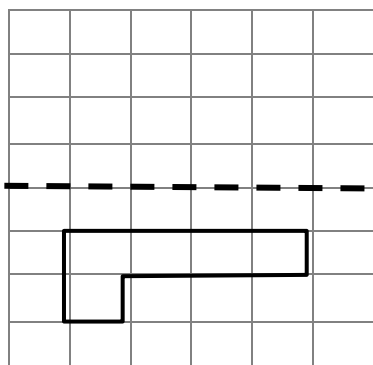
b. 4, 10, 16,,, 34 [2]

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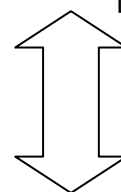
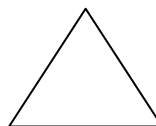
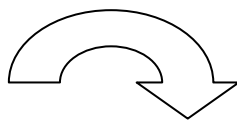
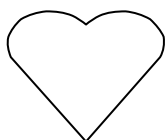
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Transformations (1) $\frac{\dots}{21} \times 100 = \dots\%$

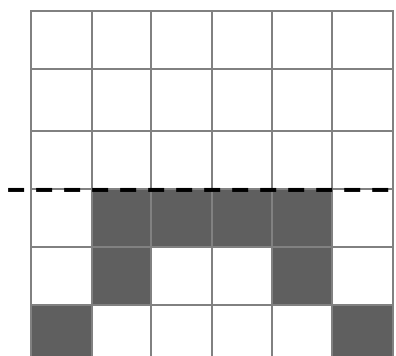
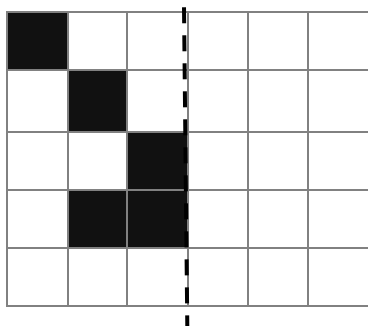
1. Draw the reflections of these shapes in the line of symmetry [6]



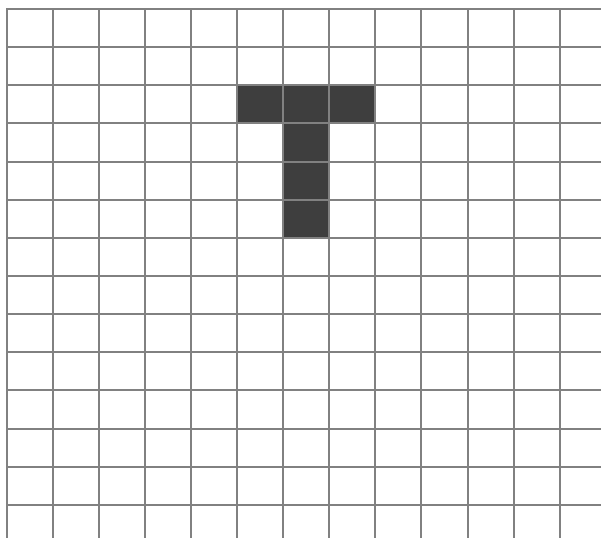
2. Draw all the lines of symmetry on the following shapes [4]



3. Shade so there is symmetry either side of the mirror line [6]



4.
a. 4 squares to the left Label A
b. 5 squares down Label B

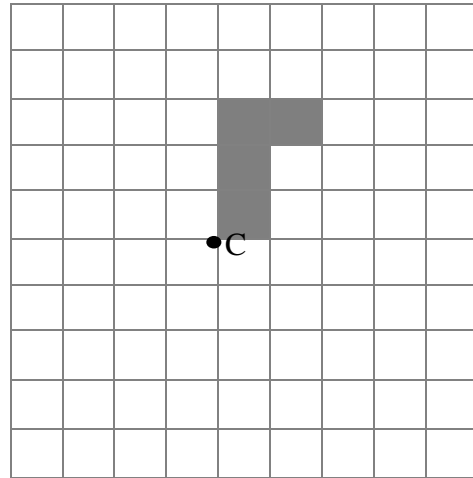
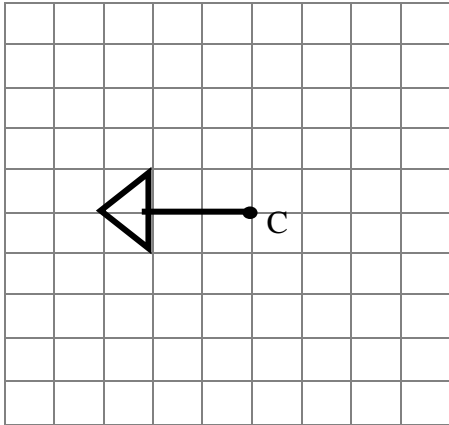


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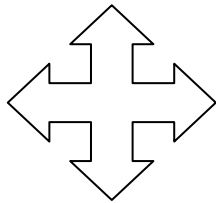
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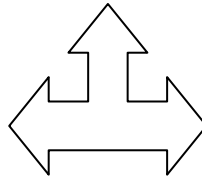
Transformations (2) $\frac{33}{21} \times 100 = \dots\%$

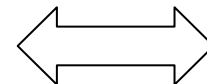
5. Rotate the shapes, Draw the arrows in it's new position
a. **quarter** of a turn **anticlockwise**. [3] b. **three quarters** of a turn **clockwise**. [3]



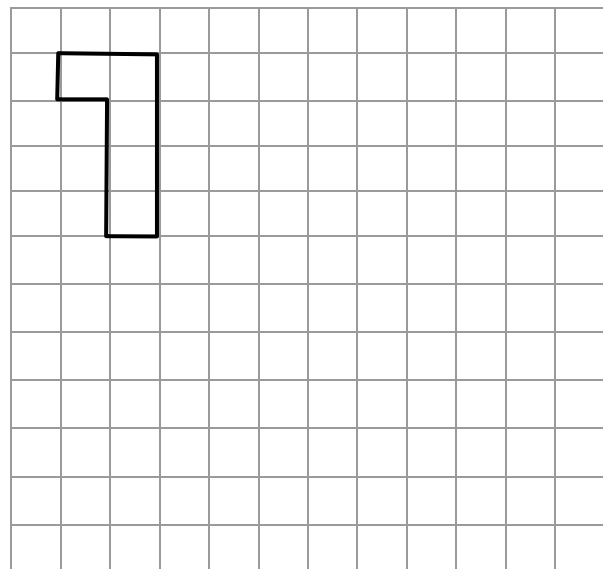
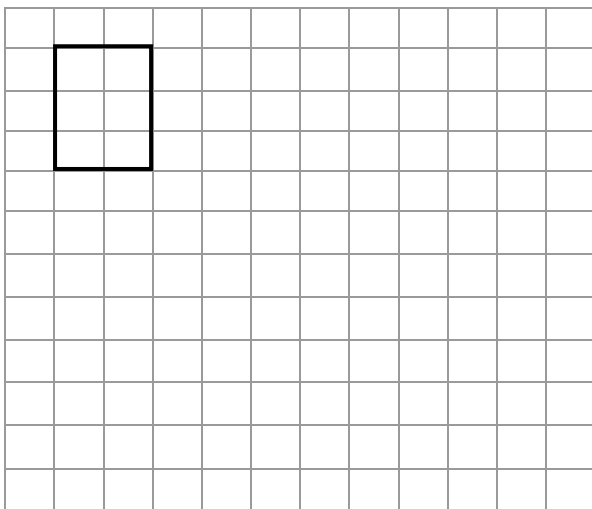
6. What is the order of rotational symmetry of these shapes [3]







7. Enlarge this shape by a
a. scale factor of 3 [3] b. scale factor of 2 [3]



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