

**Ysgol Uwchradd Caergybi
Mathematics Department
Homework Pack**

**Year 7 Module 2
Intermediate**

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Name

Class Teacher

Name

Number

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

1. Look at the following list of numbers

2 3 4 9 13 16 24 27 42 49

Using the above numbers only

- a. List the odd numbers [2]
- b. List the even numbers [2]
- c. Multiples of 3 [2]

2. Write the first 10 prime numbers

..... [3]

3. Write the first 10 square numbers

..... [3]

4. List the first 10 multiples of

- a. 6 [2]
- b. 8 [2]

5. List the Lowest common multiple of

- a. 6 and 8 [2]

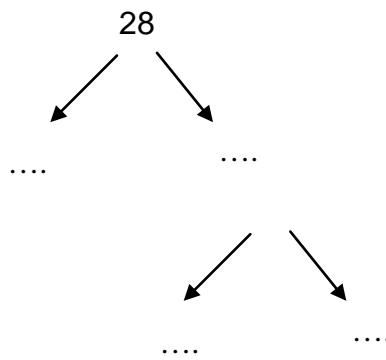
6. List all the factors of

- a. 18 [2]
- b. 24 [2]
- c. 30 [2]

Write the following as a product of its prime factors, in index form

d.

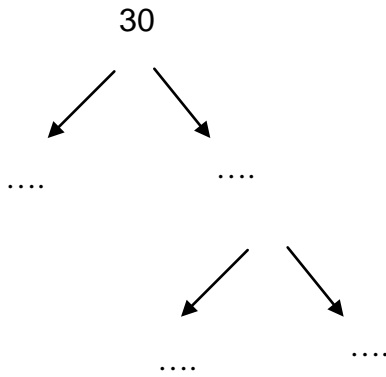
[3]



..... x x x = 28

e.

[3]



..... = 30

To improve I need to

Name

Number-2

$\frac{\dots}{40} \times 100 = \dots\%$

1. Use the BODMAS rules to answer the following

Remember $()^2 \div \times + -$

a. $5 + 4 \times 3 =$ $20 \div 4 + 3 =$ [4]

.....
.....

b. $(5 + 4) \times 3 =$ $15 + 5 \times 10 =$ [4]

.....
.....

c. $12 + 20 \div 4 =$ $17 + 8 \div 2 =$ [4]

.....
.....

d. $7 \times 4 + 2 \times 10 =$ $6 \times 4 - 3 \times 5 =$ [6]

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

e. $(6 - 1) \times 3 + 6 =$ $8^2 - 4 \times 6$ [6]

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

2. Calculate the following

a. $7^2 = \dots\dots\dots$ d. $3^3 = \dots\dots\dots$ g. $\sqrt{81} = \dots\dots\dots$
b. $8^2 = \dots\dots\dots$ e. $1^3 = \dots\dots\dots$ h. $\sqrt{36} = \dots\dots\dots$
c. $5^2 = \dots\dots\dots$ f. $2^3 = \dots\dots\dots$ i. $\sqrt{100} = \dots\dots\dots$ [9]

3. Do you remember this from the last homework?

- a. Write down all the factors of 32 [2]
- b. Write down the first 8 multiples of 7 [2]
- c. Write down 5 prime numbers [2]

1 bonus mark for effort

To improve I need to

1. Calculate the following [4]

a. 82×100 c. $340 \div 10$

b. 6.2×100 d. $72 \div 10$

2. Put the following in order of size from **smallest** to **biggest** [2]

a. 6.2 61 6.1 0.61 6
.....

b. 5.15 5.2 15 5.1 5.0 5.05 [2]
.....

3. Calculate **SHOW YOUR WORKING OUT** [4]

a. $12.6 + 5.3$ d. $18.9 + 7.8$
.....
.....

b. $17.8 - 5.4$ e. $23.4 - 6.6$ [4]
.....
.....

c. 2.4×3 f. 3.7×4 [4]
.....
.....

To improve I need to

4. Complete the following

a. Write three thousand and fifty Pounds in figures [1]

.....

b. Write £15 400 in words [1]

.....

5. Round the following [3]

a. 78 to the nearest 10 b. 341 to the nearest 100

b. 5.12 to the nearest whole number

6. A Calculator costs £9.97, **estimate** the cost of five calculators [2]

.....

When answering the following questions show any calculations you needed to make

7. John bought a magazine for £3.95 he paid with £5, how much change did he get?

..... [2]

8. Sian bought 4 packs of smarties at 55p per packet, how much did she spend?



..... [2]

9. Charles went to the chippy and bought [2]
a bag of Chips and two small sausages
How much did he spend ?

The Chippy	
Large Chips	£1.50
Bag of Chips	£1.20
Fish	£2.10
Sausage Large	£0.85
Small	£0.55

.....

10. List the smallest number of coins you need to make £1.36 ?

..... [2]

To improve I need to

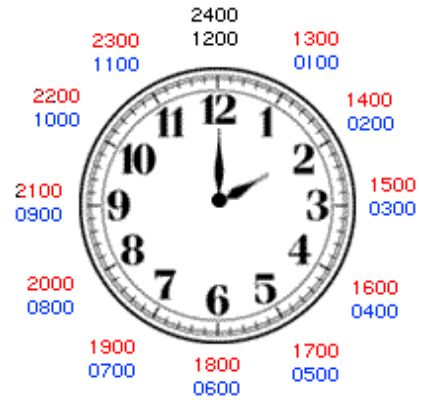
Name

Time

$\frac{33}{33} \times 100 = \dots\%$

1. Change the following from 12hour clock to 24hour clock [4]

- a. 8:07am
- b. 7:15pm



2. Change the following from 24hour clock to 12hour clock [4]

- a. 14:16
- b. 21:34

3. This is the timetable of a train from Holyhead to Bangor

- a. How much time does the bus take to go from [4]
 - i. Holyhead to Rhosneigr
 - ii. From Holyhead to Bangor
 - iii. From Valley to Ty Croes
 - iv. Ty Croes to Bangor

Holyhead	8:00
Valley	8:06
Rhosneigr	8:10
Ty Croes	8:18
Bodorgan	8:25
Llanfairpwll	8:35
Bangor	8:45

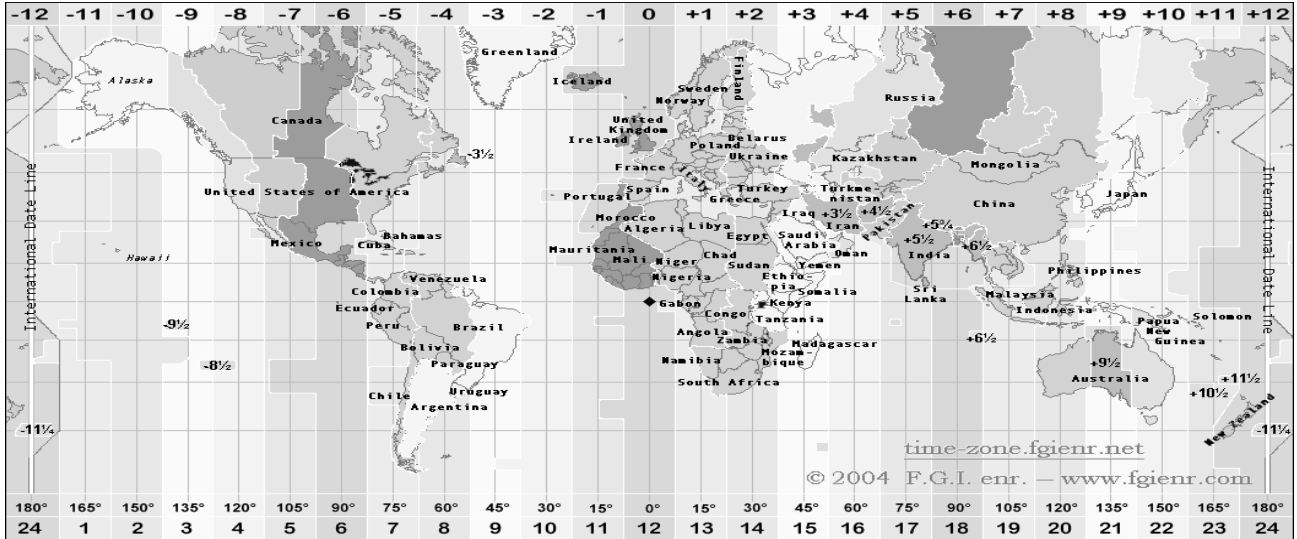
4. This is the bus timetable of train from Holyhead to Llangefni

Holyhead Summerhill	0500	....	0600	....	0630	0645	....	0710	....	0745	....	0840
Holyhead, Tesco	....	....	....	....	0637	....	....	....	....	....	....	0847
Trearddur	....	....	0608	....	....	0653	....	0718	....	0749	....	....
Valley Crossroads	0510	....	0616	....	0641	0701	....	0726	....	0755	....	0855
RAF Valley	0519	....	....	....	....	0712	....	0737	....	0801	....	....
Bodedern School	....	....	....	....	....	....	....	....	....	0814	....	....
Bryngwran	....	....	0626	....	0649	0718	....	0743	....	0819	....	0905
Rhostrehwfa	....	....	0639	....	0702	....	....	0756	....	....	....	0918
Bodffordd	....	....	....	....	....	0731	....	....	....	0834	....	....
Llangefni Post Office	0538	0538	0645	0645	0708	0737	0737	0802	0802	0840	0840	0924

- a. How many buses stop at RAF Valley?..... [1]
- b. Which bus from Holyhead gets to Llangefni at 8:40?[1]

1 bonus mark for effort

5. Look at the map and Table of World time zone.



City	Los Angles	New York	Rio de Janerio	Paris	Moscow	Mumbai	Beijing	Tokyo	Sydney
Hours Different	-8	-5	-3	+1	+4	+5½	+8	+9	+10

a. If it's 12:00 in the UK what time is it [6]

Moscow Sydney New York

b. If its 5:00 am in New York, what time is it in London ? [2]

c. If its 2:00 pm in Rio de Janerio, what time is it in London ? [2]

6. Complete the following sentences

- a. seconds in 1 minute b. minutes in 3 hours
- b.weeks in a year d. days in a leap year [4]

7. Remember Speed = $\frac{\text{Distance}}{\text{Time}}$

a. John bikes 60 miles in 6 hours What is John's speed in mph ?
..... [2]

b. Sian drives the same distance in 2 hours What is Sian's speed in mph ?
..... [2]

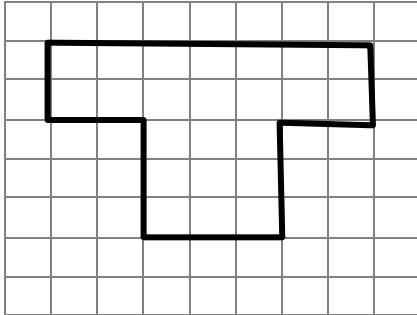
To improve I need to

Name

Area

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

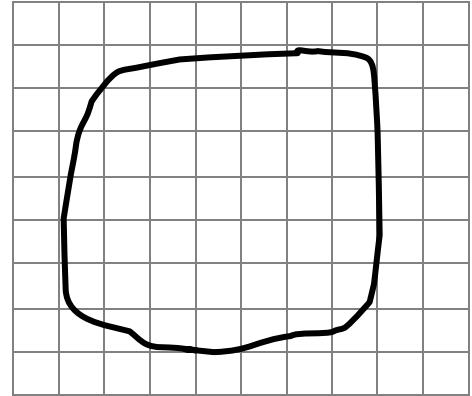
1. Find the **perimeter** and **area**



a. Perimeter..... [2]

b. Area [1]

2. Estimate the **area** of this shape



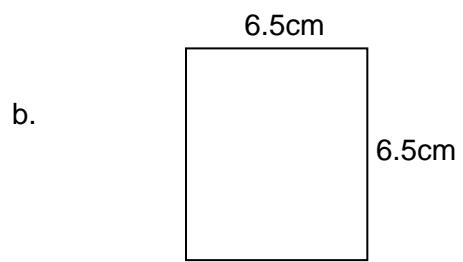
Area[2]

2. Find the **area** and **perimeter** of the following rectangles, **Write down the correct units.**



Area = [2]

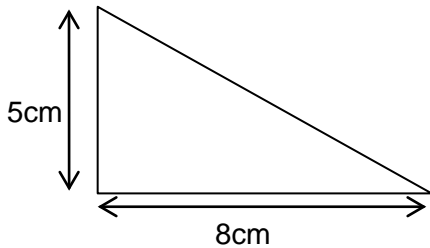
Perimeter = [2]



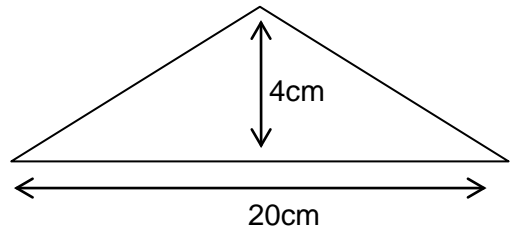
Area =[2]

Perimeter =[2]

3. Find the area of the Triangles **Write down the correct units [1]**



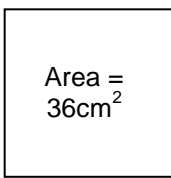
Area = [2]



Area = [2]

4. A square has an area of 36cm². Calculate it's perimeter.

Perimeter =



[3]

To improve I need to

Name

Angles

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

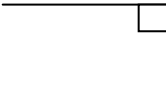
1. Write the name for each of these angles.

a.



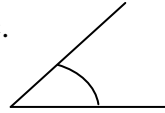
.....

b.



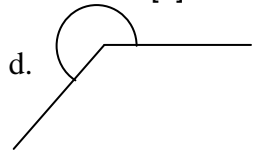
.....

c.



.....

d.



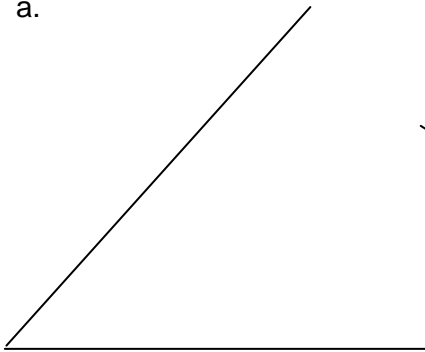
.....

[4]

2. Measure the following angles

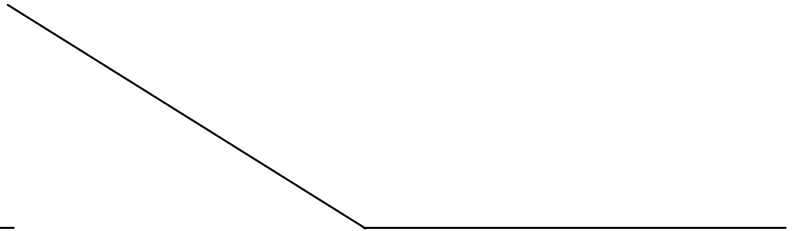
[2]

a.



.....

b.



.....

3. Draw the following angles:

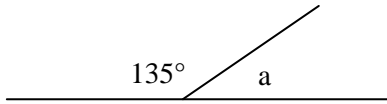
[4]

a. 20°

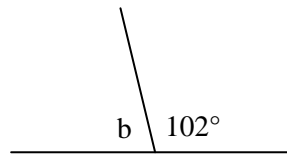
b. 145°

4. Calculate the unknown angle.

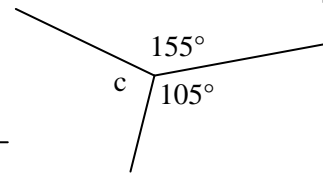
[6]



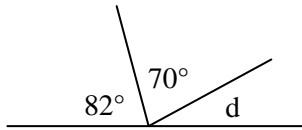
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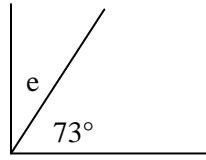
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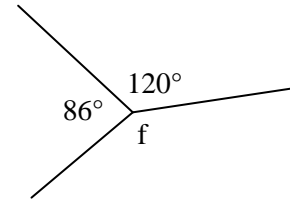
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.....



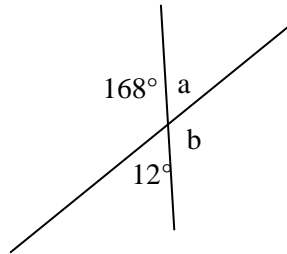
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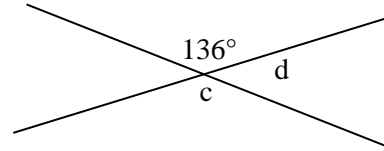
5. Calculate the unknown angle.

[4]



.....

.....



.....

.....

To improve I need to

1. An ice hockey league published the following information about the total attendance at matches for the years 2009, 2010 and 2011.]

	Number of teams	Total Attendance		
		2009	2010	2011
Division 1	10	19 080	21 354	21 876
Division 2	10	12 150	12 276	11 879
Division 3	9	4680	3684	2856

What was the total attendance for all matches in 2011?

[2]

In Division 3, how many more people attended the matches in 2009 than attended the matches in 2011?

[2]

In 2009, all the matches in all three divisions were played on Friday evenings.

On any given Friday evening, in which division was it most likely that one of the teams would not have a match?

Give a reason for your answer.

[1]

In a junior ice hockey league there are only four teams.

Each team must play every other team once only.

Showing how you got your answer, find out how many matches are played altogether in this junior league.

Total number of matches =

[2]

To improve I need to