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Mathematics Department

Homework Pack

Year 9 Module 9

Foundation

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Name

Class Teacher

Name

Number

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

1. Look at the following list of numbers [8]

- 2 3 4 9 13 16 24 27 42 49

Using the above numbers only

- a. List the odd numbers
- b. Multiples of 3
- c. Factors of 24
- d. Prime numbers

2. List the first 10 multiples of [4]

- a. 9
- b. 14

3. List all the factors of

- a. 24 [2]
- b. 30 [2]
- c. Write down a common factor of 24 and 30 [1]

4. Look at the following list of numbers [6]

- 3 4 6 10 12 13 23 25 30 45 64

Using the above numbers only

- a. Multiples of 5
- b. Factors of 30
- c. Square numbers

5. Using the figures 4, 7, 1, 2

- a. Write down the largest **odd** number using all 4 digits[1]
- b. Write down the smallest **even** number using all 4 digits[1]

To improve I need to

Name

Standard Form

$$\frac{\dots}{12} \times 100 = \dots\%$$

1.

- a. Write 4 000 in words [1]
- b. Write 20 500 in words [1]
- c. Write 860 000 in words [1]
- d. Write 22 000 000 in words [1]
- e. Write 14 500 000 in words [1]

2. The following numbers are written in standard form re write them in full.

- a. Three Million in figures [1]
- b. Four thousand in figures [1]
- c. Thirteen thousand two hundred..... [1]
- d. One hundred and ten thousand in figures..... [1]
- e. Two hundred and fifty thousand in figures..... [1]

3. Write in standard form example $5\,000\,000 = 5 \times 10^6$

- a. 3 000 000 [1]
- b. 50 000 [1]

To improve I need to

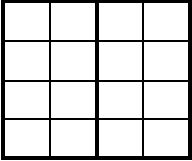
Name

Fractions

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

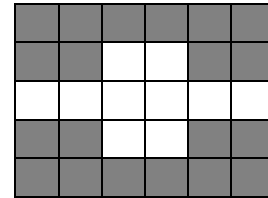
1. Shade

a. $\frac{4}{5}$ of  [2]

b. $\frac{3}{8}$ of  [2]

2. What fraction of the following shapes are shaded

Write in its simplest form [3]



3. Circle the biggest $\frac{1}{5}$ or $\frac{1}{3}$ [2]

4. Find the following [4]

a. $\frac{1}{5}$ of 30..... $\frac{1}{3}$ of 24

b. $\frac{1}{7}$ of 42 $\frac{1}{9}$ of 54

5. Find the value of the following [8]

a. $\frac{4}{5}$ of 15 $\frac{2}{3}$ of 33

$\frac{5}{12}$ of 24 $\frac{3}{8}$ of 48

6. Complete the following to find the equivalent fraction [2]

a. $\frac{4}{5} = \frac{\dots}{10}$ b. $\frac{3}{8} = \frac{\dots}{24}$

7. Solve the following [2]

a. $\frac{4}{10} + \frac{2}{10} = \dots$ b. $\frac{7}{9} - \frac{2}{9} = \dots$

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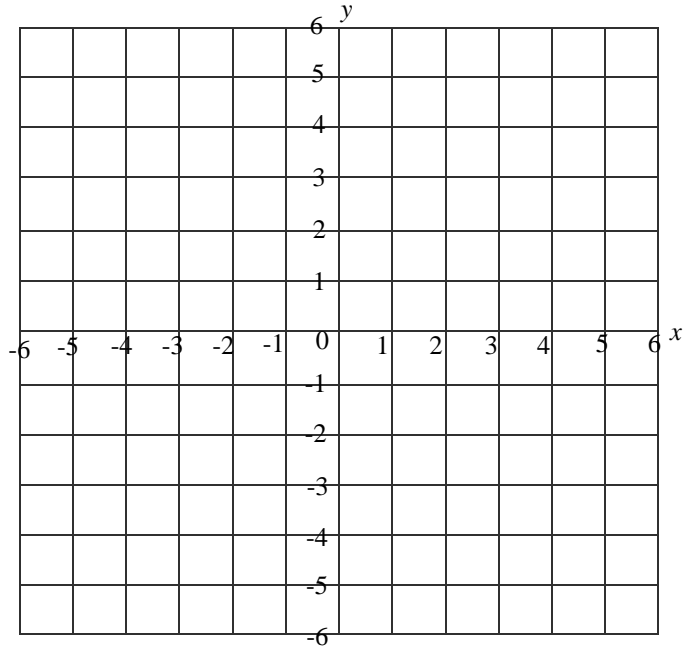
Name

Straight Lines

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

1. Plot the following

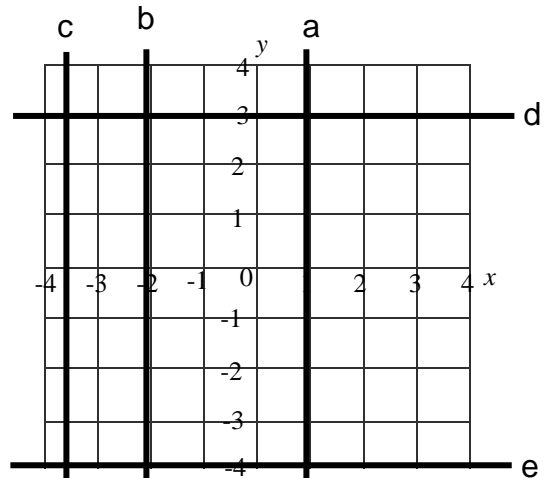
- a. (3, 4) Label A
- b. (-5, 2) Label B
- c. (4, -6) Label C
- d. (-1, -3) Label D



2. Write the names for these lines

[5]

- a. Line **a** name is $x = \dots$
- b. Line **b** name is $x = \dots$
- c. Line **c** name is $x = \dots$
- d. Line **d** name is $y = \dots$
- e. Line **e** name is $y = \dots$



3. Draw the following lines [5]

Label each line fully

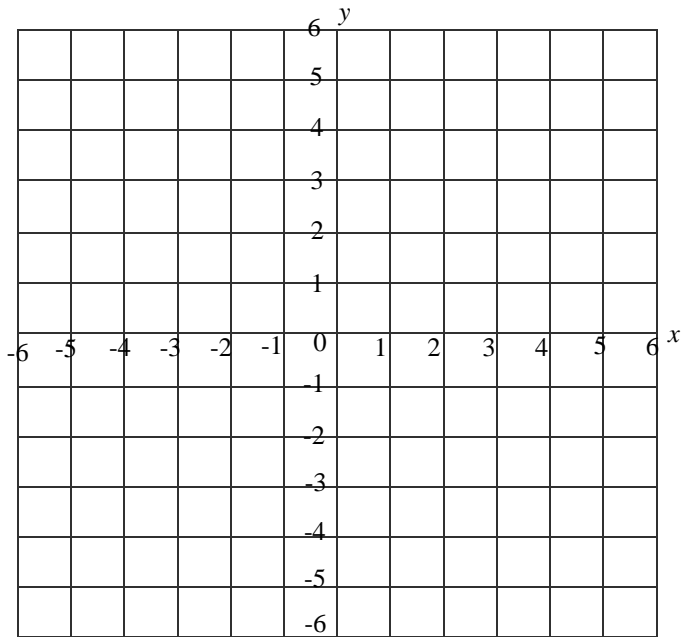
a. $x = 4$

b. $y = -3$

c. $x = -6$

d. $y = 5$

a. $x = 0$



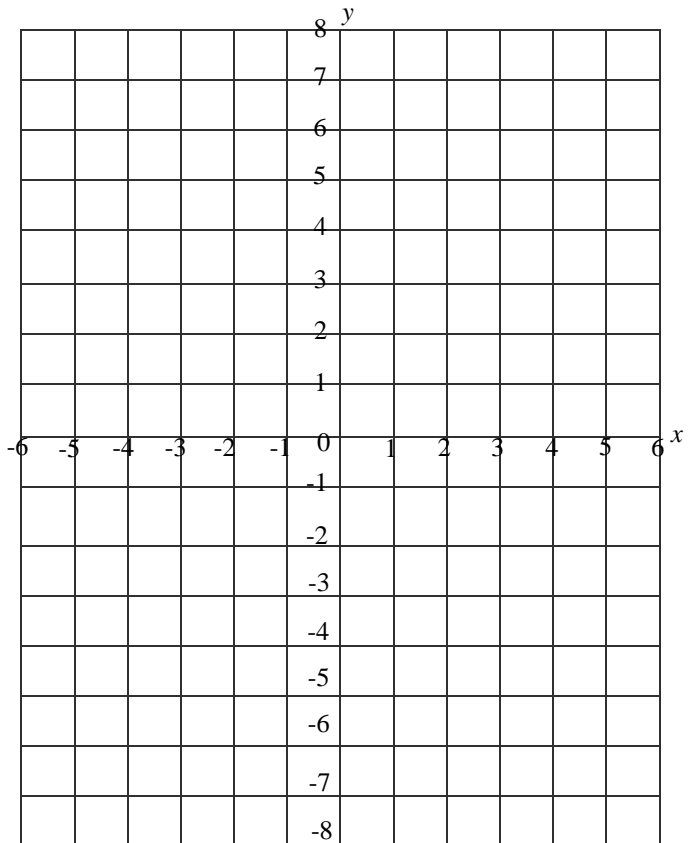
4. Using the values from the tables plot the following graphs. Label each line clearly

a. $y = 2x$ [3]

x	-4	-2	0	2	4
y	-8	-4	0	4	8

b. $y = x + 3$ [3]

x	-4	-2	0	2	4
y	-1	1	3	5	7



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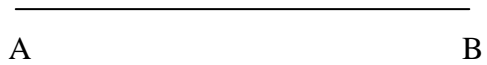
Name **Construction**

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

1. Draw a Circle with a radius of 4cm [3]

What is the length of the diameter [1]

2. Use a compass to 6cm equilateral triangle ABC, label fully [4]



What is the size of the internal angle of the equilateral triangle° [1]

3. Name the type of angle which is less than 90° [1]

To improve I need to

Name Numeracy-1

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

ADDITION

1.

$$\begin{array}{r} 5 \ 8 \ 5 \\ + 2 \ 6 \ 8 \\ \hline \\ \hline \end{array}$$

2.

$$\begin{array}{r} 7 \ 3 \ 8 \\ + 5 \ 8 \ 9 \\ \hline \\ \hline \end{array}$$

NON CALCULATOR

3.

$$\begin{array}{r} 8 \ 7 \ 9 \\ + 6 \ 8 \ 6 \\ \hline \\ \hline \end{array}$$

4.

$$\begin{array}{r} 2 \ 9 \ 0 \ 5 \\ + 5 \ 7 \ 3 \ 6 \\ \hline \\ \hline \end{array}$$

5.

$$\begin{array}{r} 7 \ 9 \ 6 \ 8 \\ + 8 \ 3 \ 6 \ 4 \\ \hline \\ \hline \end{array}$$

6.

$$\begin{array}{r} 4 \ 3 \ 3 \ 4 \\ + 7 \ 7 \ 7 \ 7 \\ \hline \\ \hline \end{array}$$

SUBTRACTION

7.

$$\begin{array}{r} 6 \ 5 \ 3 \\ - \quad 6 \ 4 \\ \hline \\ \hline \end{array}$$

8.

$$\begin{array}{r} 3 \ 5 \ 4 \\ - \quad 8 \ 6 \\ \hline \\ \hline \end{array}$$

9.

$$\begin{array}{r} 7 \ 0 \ 0 \\ - \quad 4 \ 8 \\ \hline \\ \hline \end{array}$$

10.

$$\begin{array}{r} 8 \ 0 \ 3 \\ - 4 \ 7 \ 6 \\ \hline \\ \hline \end{array}$$

11.

$$\begin{array}{r} 6 \ 0 \ 6 \\ - 3 \ 8 \ 8 \\ \hline \\ \hline \end{array}$$

12.

$$\begin{array}{r} 9 \ 6 \ 7 \\ - 3 \ 5 \ 9 \\ \hline \\ \hline \end{array}$$

2 Marks each Question, 1 Mark for Working Out

To improve I need to

Name

Numeracy- 2

.....%

NON CALCULATOR Complete the multiplication grid

X	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Name

Numeracy-3

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

MULTIPLICATION

1.

$$\begin{array}{r} 87 \\ \times 6 \\ \hline \\ \hline \end{array}$$

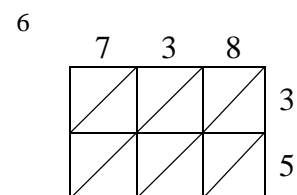
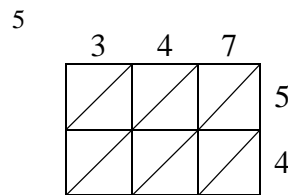
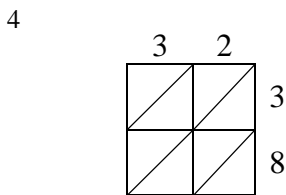
2.

$$\begin{array}{r} 567 \\ \times 8 \\ \hline \\ \hline \end{array}$$

NON CALCULATOR

3.

$$\begin{array}{r} 758 \\ \times 9 \\ \hline \\ \hline \end{array}$$



7.

$$4 \overline{) 764}$$

8.

$$7 \overline{) 386}$$

9.

$$9 \overline{) 549}$$

10.

$$5 \overline{) 3275}$$

11.

$$7 \overline{) 3129}$$

12.

$$12 \overline{) 420}$$

2 Marks each Question, 1 Mark for Working Out

Name

Numeracy-4

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

You can use a calculator to answer the following

1. A local supermarket advertises Photo Printing

Cost = 5p per photograph + one payment of 70p

a. Sian prints 30 photographs, calculate how much she will have to pay. [2]

.....
.....

b. Bob pays £2.50 including the 70p payment
How many photographs does Bob get? [3]

.....
.....

2. A classroom has an area of 60m², John goes to two different carpet shops and gets the following prices

'Carpets are us' Green Twirl @ £12.50 m²
'Carpets for you' Green Twist @ £15.00 m²

a. Calculate the Cost of buying the cheaper carpet [2]
'Carpets are us' 12.50 x 60

'Carpets are us'

b. Which is the cheapest and by how much? [1]
.....
.....

3. 80,000 spectators watched the 100m final of the Olympics. If the average price of a ticket was £35, what was the total income received. [2]

.....

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