

Homework 1  
Number Work (1)

Name:

Class:

Mark:

1. Order each list of numbers, smallest first :-

d 5.3, 5.46, 5.03, 5.1, 5.31, 5.18

e 9.4, 10.32, 10.06, 9.78, 9.14, 10.1, 10.77

2. Complete the following and find the answers :-

a

$$\begin{array}{r} 3.31 \\ + 6.67 \\ \hline \end{array}$$

b

$$\begin{array}{r} 2.84 \\ + 7.16 \\ \hline \end{array}$$

c

$$\begin{array}{r} 4.15 \\ + 4.77 \\ \hline \end{array}$$

d

$$\begin{array}{r} 3.06 \\ + 2.24 \\ \hline \end{array}$$

3. Complete the following and find the answers :-

a

$$\begin{array}{r} 6.08 \\ - 2.98 \\ \hline \end{array}$$

b

$$\begin{array}{r} 4.60 \\ - 2.08 \\ \hline \end{array}$$

c

$$\begin{array}{r} 8.25 \\ - 3.39 \\ \hline \end{array}$$

d

$$\begin{array}{r} 7.29 \\ - 5.54 \\ \hline \end{array}$$

4. Complete the calculations :-

a  $31.57 \times 8$

b  $10.40 \times 3$

c  $223.5 \times 7$

d  $316.24 \times 6$

5. Complete each calculation :-

a  $7.95 \div 5$

b  $56.48 \div 8$

c  $4.56 \div 4$

d  $0.81 \div 9$

Homework 2  
Number Work (2)

Name:

Class:

Mark:

1. a Jasmine walked 23.45 kilometres in 5 hours.

How far had she walked, on average, each hour?

- b A sign in a supermarket claimed that no more than **one seventh** of their mince was fat.

If a packet of mince weighted 2.52 kg, how much of it, at most, should be fat?

2. a A Stevie the snail covered 9.13 metres in one hour.

At this speed, how far will Stevie travel in 6 hours?

- b During a storm, 3.45 centimetres of rain fell every hour.

What depth of rain fell during the 6 hours the storm lasted?

Homework 3  
Number Work (3)

Name:

Class:

Mark:

1. Write down the answers to the following :-

a  $45 \times 10$

b  $22 \times 10$

c  $10 \times 76$

d  $10 \times 20$

e  $123 \times 10$

f  $802 \times 10$

g  $10 \times 1200$

h  $10 \times 1030$

2. Write down the answers to the following :-

a  $41 \times 100$

b  $99 \times 100$

c  $100 \times 231$

d  $100 \times 100$

e  $501 \times 100$

f  $100 \times 300$

g  $100 \times 2020$

h  $5000 \times 100$

3. Write down the answers to the following :-

a  $330 \div 10$

b  $560 \div 10$

c  $700 \div 10$

d  $3000 \div 10$

e  $8000 \div 10$

f  $5500 \div 10$

g  $10\ 000 \div 10$

h  $140\ 500 \div 10$

4. Write down the answers to the following :-

a  $200 \div 100$

b  $1600 \div 100$

c  $8000 \div 100$

d  $24\ 000 \div 100$

e  $10\ 000 \div 100$

f  $20\ 100 \div 100$

g  $300\ 000 \div 100$

h  $5\ 000\ 000 \div 100$

|   |  |
|---|--|
| <b>Homework 4</b><br><b>Order of Operations</b> | Name: <input type="text"/>                             |
|   | Class: <input type="text"/> Mark: <input type="text"/> |

**REMEMBER: BRACKETS *first* - MULTIPLY OR DIVIDE *next* - ADD OR SUBTRACT *last***

1. Find, showing two more steps each time :-  
(the first one has been done for you)

a  $(4 + 2) \times 3$

$$\begin{aligned} &(4 + 2) \times 3 \\ &= 6 \times 3 \\ &= 18 \end{aligned}$$

b  $5 \times (3 + 2)$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

c  $(12 + 5) \times 2$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

d  $(4 + 2) \times 13$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

e  $(12 - 5) \times 2$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

f  $(34 - 16) \times 4$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

g  $(26 - 13) \times 5$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

h  $9 \times (58 - 41)$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

i  $(32 + 24) \div 7$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

j  $(25 - 5) \div 5$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

k  $(92 - 29) \div 9$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

l  $6 \times (7 + 2) - 24$

$$\begin{aligned} & \\ & \\ & \end{aligned}$$

Homework 5  
Rounding

Name:

Class:

Mark:

1. Round the following to 1 decimal place :-

a 4.76



b 12.84



c 1.251



d 4.2731



2. Round the following to 2 decimal places :-

a 2.643



b 1.338



c 4.507



d 3.899



3. Round the following to 2 significant figures :-

a 3574



b 7.574



c 31.4



d 36.9



e 15.19



f 5486



g 3.223



h 0.00724



4. Round the following to 3 significant figures :-

a 13.36



b 17.21



c 3574



d 4825



e 20.04



f 1.006

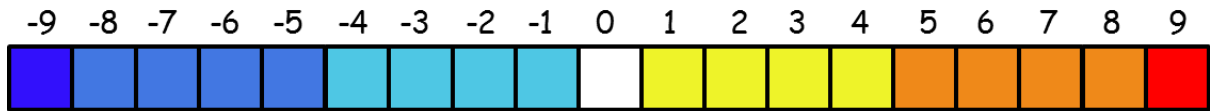


Homework 6  
Negative Numbers

Name:

Class:

Mark:



1. Complete the following calculations :-

a  $-6 - 0 =$

b  $-7 - 8 =$

c  $2 - (-6) =$

d  $-8 - (-8) =$

e  $9 - (-6) =$

f  $-2 - (-6) =$

g  $7 - (-3) =$

h  $-9 - (-9) =$

i  $-6 + (-8) =$

j  $-3 - (-7) =$

k  $0 + (-2) =$

l  $-3 + 6 =$

m  $-4 + (-8) =$

n  $3 - (-1) =$

o  $-5 - (-8) =$

p  $3 - (-5) =$

q  $9 - (-2) =$

r  $-4 + (-12) =$

s  $15 + (-6) =$

t  $-30 - 4 =$

2. Complete the following calculations :-

a  $-94 - (73) =$

b  $-65 + (-41) =$

c  $-10 - (-12) =$

d  $2 + (-78) =$

e  $33 - (-53) =$

f  $-61 + 92 =$

## Homework 7 Fractions

Name:

Class:

Mark:

2. Kevin had £8, John had £5 and Tina had £7.
- What total amount of money did they have altogether?
  - What fraction of the total did Tina have?
  - What simplified fraction did John have?




3. Help the Knight combat the dragons and trolls and get to the gold!

Work out what the fraction of each amount is and follow the correct path through the maze.

**SHOW ALL WORKING BELOW**  
(The first one has been done for you.)

Q1:  $\frac{1}{6}$  of 18 =  $18 \div 6 = 3$

Homework 8  
Percentages (1)

Name:

Class:

Mark:

1. Find without a calculator :-

a 50% of £9

b 75% of 9600kg

c  $33\frac{1}{3}\%$  of 360m

d 75% of £5

e  $66\frac{2}{3}\%$  of 1.2kg

f 25% of 300p

2. Find using a calculator:-

a 80% of \$90

b 60% of 240p

c 70% of 520cm

d 30% of 3100km

e 15% of 120g

f 8% of £66



Homework 9  
Percentages (2)

Name:

Class:

Mark:

1. Eighty percent of the 560 DVDs in a shop are rated 15.

How many DVDs are rated 15?

2. On holiday, Calvin spent 75% of his £450 spending money.

How much money did Calvin spend?

3. Margaret took £350 on holiday and return with 15% of her money.

How much money did Margaret spend on holiday?

Homework 10  
Percentages (3)

Name:

Class:

Mark:

LOOK AT THE FOLLOWING EXAMPLE TO HELP YOU CONVERT A FRACTION TO A PERCENTAGE :-

To change  $\frac{1}{2}$  to a percentage, type the following into your calculator:

1. Use a calculator where necessary and change each fraction to a percentage :-

a  $\frac{8}{25}$

b  $\frac{12}{40}$

c  $\frac{5}{8}$

d  $\frac{11}{80}$

2. Andrew sat a Maths test which comprised of twenty questions each worth two marks. Andrew scored 32 marks. Write his test score as a percentage.

HINT: Work out how many marks the test was worth in total first.

3. Patel scored  $\frac{32}{50}$  for French,  $\frac{45}{72}$  for Music,  $\frac{18}{25}$  for English and  $\frac{22}{30}$  for Maths.

Convert each of Patel's scores to percentages and list his scores in order from best to worst.

**French:**

**Music:**

**English:**

**Maths:**

**Homework 11**  
**Ratio and Proportion (1)**

Name:

Class:

Mark:

1. Look at the picture.

Write down the ratio of :-

a cats to dogs

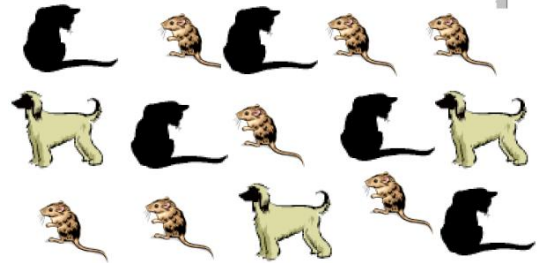
b cats to mice

c dogs to cats

d dogs to mice

e mice to cats

f mice to animals



2. From the picture, write in simplest form the ratio of :-

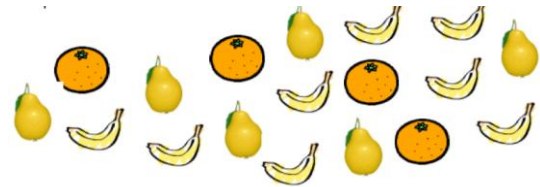
a oranges to pears

b bananas to pears

c pears to bananas

d pears to oranges

e bananas to fruit

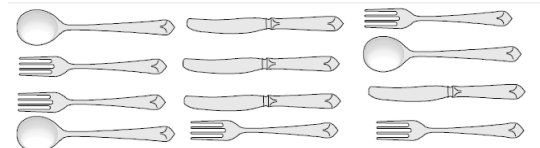


3. Look at the picture opposite and write down the ratio of :-

a spoons : forks

b forks : knives

c knives : spoons



**Homework 12**  
**Ratio and Proportion (2)**

Name:

Class:

Mark:

1. On a bus the ratio of men to women is 1 : 3.

If there are 8 men on the bus, how many women are there?

**HINT: Use the table opposite to help you.**

| men   | women   |
|---|---|
| $x?$ $\begin{matrix} \curvearrowright \\ 1 \\ \blacktriangle \\ 5 \end{matrix}$ | $\begin{matrix} 3 \\ \curvearrowright \\ \dots \end{matrix}$ $x?$ |

2. At a school disco, the ratio of cans of Cola to cans of Orange sold was 5 : 2.

There were 30 cans of Cola sold.

Find out how many cans of Orange were sold.

| cola   | orange  |
|--|---|
| $x?$ $\begin{matrix} \curvearrowright \\ 5 \\ \blacktriangle \\ 30 \end{matrix}$ | $\begin{matrix} 2 \\ \curvearrowright \\ \dots \end{matrix}$ $x?$ |

3. In a box of chocolates, the ratio of raspberry to vanilla flavours is 3 : 2.

If there are 12 raspberry flavoured chocolates in the box, how many vanilla flavoured chocolates are there?

| raspberry  | vanilla   |
|--|---|
| $x?$ $\begin{matrix} \curvearrowright \\ 3 \\ \blacktriangle \\ 12 \end{matrix}$ | $\begin{matrix} 2 \\ \curvearrowright \\ \dots \end{matrix}$ $x?$ |

Homework 13  
Distance, Speed and Time (1)

Name:

Class:

Mark:

1. Convert the following times to 24 hour time :-

a 6.50 am

b 8.15 pm

c 10.30 pm

1. Convert the following times to 12 hour time :-

a 1425

b 0840

c 2345

2. Bob got on a train at 8.15am and arrived at 11.05am.

How long did the journey take?

3. An aeroplane took off at 1142 and arrived at 1837.

How long was the flight?

4. Here is the TV guide for a Saturday morning:

**8.30**    *The Mumbles*

**8.50**    *The Saturday Show*

**9.15**    *Film: Where is my brain?*

**10.55**    *The News*

**11.05**    *Sports Round Up*

a      How long does The Mumbles last?

b      Which programme starts at five to eleven?

c      Sylvester turned on the TV at half past nine.

(i)    Which programme was on?

(ii)   How much had he missed?

d      How long does The Saturday Show last?

Homework 14  
Distance, Speed and Time (2)

Name:

Class:

Mark:

1. A girl cycles for 3 hours at a speed of 40 km/h.

What distance did she travel?

2. Jim travelled at a speed of 18 km/h for 2 hours.

What was the distance covered?

3. A whale swims at a constant speed of 8 m/s for 17s.

What distance did it travel?

4. What distance did a train cover when it travelled at 80 mph for 1 hour and 30 minutes hours?

5. If I went for a  $2\frac{1}{2}$  hour walk at an average speed of 5mph, how far did I walk?

6. A racing car travelled at an average speed of 160 km/h for 45 minutes ( $\frac{3}{4}$  hour).

How far did it travel?

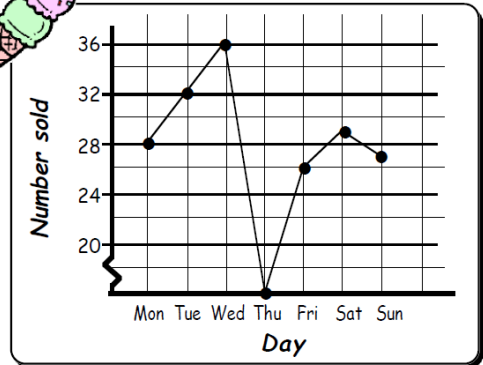
**Homework 15**  
**Data Analysis (1)**

Name:

Class:

Mark:

1. The line graph shows the sales of Tony's ice-cream one week in July.



- a How many ice-cream's did Tony sell on
- (i) Monday  (ii) Friday
- (iii) Saturday  (iv) Sunday

b Tony was ill one day and could not drive his van to work.

What day was Tony ill?

c What day do you think was the hottest day? Explain.

d What was the total number of ice-creams sold that week?

e What was the mean (average) number of ice-creams sold per day over the seven days?

2. The pie chart below shows this year's senior school disco attendance.

a What percentage of the pupils were :-

(i) 4<sup>th</sup> year

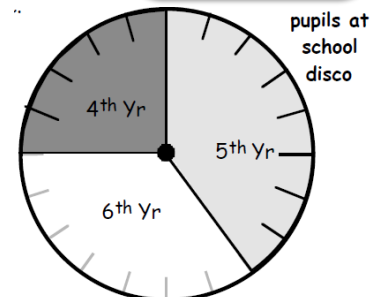
(ii) 5<sup>th</sup> year

(iii) 6<sup>th</sup> year




b If 480 pupils attended the disco, write the attendance of each year group.





**Homework 16**  
**Data Analysis (2)**

Name:

Class:

Mark:

1. Using the boxes, read and list the values from the following stem and leaf diagrams :-

**a**

| STEM | LEAF    |
|------|---------|
| 2    | 1 3 6 9 |
| 3    | 0 4 4   |
| 4    | 5 5 6   |
| 5    | 3       |

The numbers are 21, 23, ,

, , , , ,

, , .

**b**

| STEM | LEAF    |
|------|---------|
| 0    | 2 6 8   |
| 1    | 3 4 5 8 |
| 2    | 1 2 4   |
| 3    | 0 5     |

The numbers are , ,

, , , , ,

, , , , .

2. Put these numbers in the stem and leaf diagram.

72, 45, 55, 71, 40, 59, 65, 43, 79, 47, 57

Rough Version

| STEM | LEAF |
|------|------|
| 4    |      |
| 5    |      |
| 6    |      |
| 7    | 2    |

Neat Version

| STEM | LEAF |
|------|------|
| 4    |      |
| 5    |      |
| 6    |      |
| 7    |      |

**HINT: for the neat version, make sure leaves are in order from smallest to biggest and written in columns**

3. Interpret the following stem and leaf diagrams and fill in the boxes below :-

| STEM | LEAF    |
|------|---------|
| 2    | 3 3 8 9 |
| 3    | 0 4 7   |
| 4    | 5 5 5   |
| 5    | 7       |

Highest value =

Smallest value =

Range =

Mean =

| STEM | LEAF    |
|------|---------|
| 9    | 4 4 7 9 |
| 10   | 6 7 9   |
| 11   | 3 3     |
| 12   | 2 3     |

Highest value =

Smallest value =

Range =

Mean =



**Homework 17**  
**Data Analysis (3)**

Name:

Class:

Mark:

1. This scatter graph below shows the ages and weights of several children.

a Who is :- (i) the youngest

(ii) the lightest

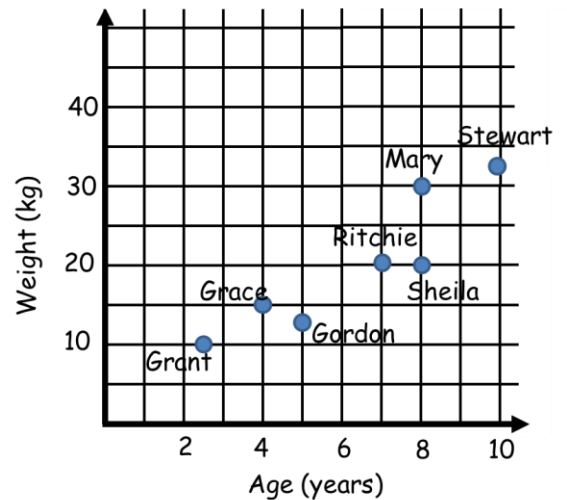
(iii) the oldest

(iv) the heaviest child

b Write down the age and weight of each child in the space below :-

| Name    | Age | Weight |
|---------|-----|--------|
| Grant   |     |        |
| Grace   |     |        |
| Gordon  |     |        |
| Ritchie |     |        |
| Sheila  |     |        |
| Mary    |     |        |
| Stewart |     |        |

Childrens' Age vs Weight

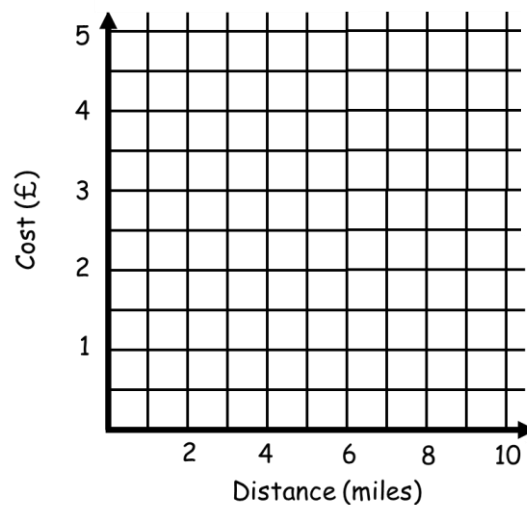


3. This graph represents the cost of different taxi fares and the distances travelled.

a Use the table below to plot the points on the graph.

| Distance | Cost |
|----------|------|
| 2        | 1.50 |
| 3        | 2.50 |
| 2        | 1.75 |
| 5        | 3.25 |
| 5        | 3.50 |
| 6        | 4.00 |

Taxi Fares



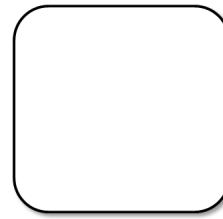
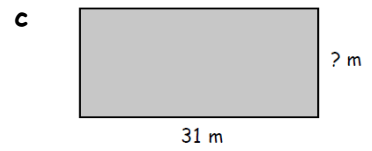
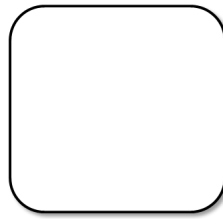
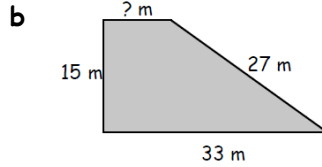
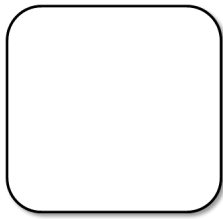
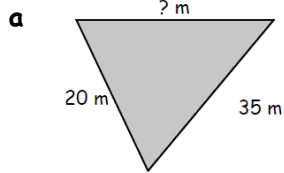
b Estimate how much a 4 mile journey would cost.



|   |  |
|---|--|
| <b>Homework 19</b><br><b>Perimeter and Area</b> | <b>Name:</b> <input style="width: 150px; height: 20px;" type="text"/>  |
|   | <b>Class:</b> <input style="width: 50px; height: 20px;" type="text"/> <b>Mark:</b> <input style="width: 50px; height: 20px;" type="text"/> |

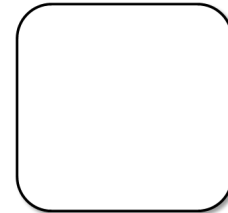
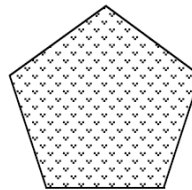
1. Each of these shapes has a perimeter of 80 metres.

Calculate the length of the missing sides.



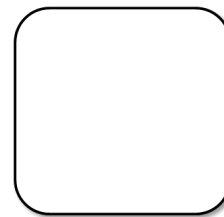
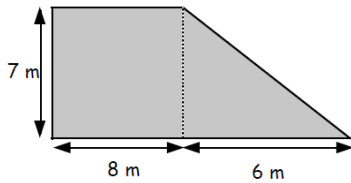
3. A field with perimeter 750 metres is in the shape of a regular pentagon.

The farmer needs to replace two sides of the field with fencing costing £20 a metre.



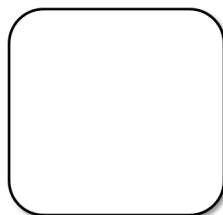
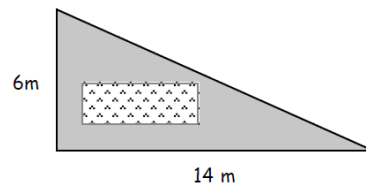
How much will the farmer have to pay?

3. Calculate the total area of the composite shape shown :-



3. A triangular garden which is to be turfed has a rectangular flower bed (area  $16 \text{ m}^2$ ).

Find the (shaded) area of the garden to be turfed.



Homework 20  
Enlargements and Reductions

Name:

Class:

Mark:

1. A plan has a scale  $1\text{cm} = 2\text{m}$ .

If the distance between a door and a wall is  $4\text{cm}$  on this plan, find the real distance from door to wall.

2. On a plan of scale  $1\text{cm}$  to  $8\text{m}$ , the front of a house measures  $7\text{cm}$ .

Find the true length of the front of the house.

3. The distance from Ayburgh to Groaton is  $10\text{cm}$  on a map.

If the scale of the map is  $1\text{cm}$  to  $2\text{km}$ , find the real distance between these two towns.

4. The distance from an airport to a harbour is  $3\text{cm}$ .

Find the real distance between the airport and harbour if the scale of the map is  $1\text{cm}$  to  $2\text{km}$ .

5. On a plan the height of a tower is  $8\text{cm}$ .

If the scale is  $1\text{cm}$  to  $2.5\text{m}$ , find the real height of the tower.

Homework 21

Volume

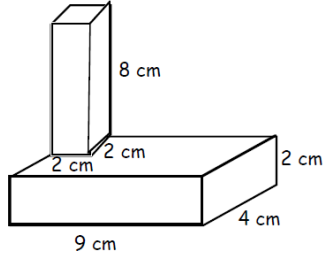
Name:

Class:

Mark:

1. Find the total volume of the following shapes :-

a



b

