Worksheet 3

Some of the questions can be written on the worksheet. Other questions might need separate paper.

Rounding to the nearest whole, 10, 100, 1000

Complete the table below... Cells that make no sense have been blocked out.

Number	Round the numbers to nearest...			
	Whole	10	100	1000
2 965 031.59				
27.56				
57 789.45				
951.05				
456 023				
14.75				
0.49975				
0.50031				
47.067				

Try these questions

1) Use a calculator to find $\sqrt{4700}$ and round your answer to the nearest whole number

2) The population of England in 2015 was found to be 54 786 327. Round this to the nearest hundred thousand.

3) The population of Scotland in 2015 was listed as 5 373 000 to the nearest thousand. What is the smallest population consistent with this figure?

4) Wales had a population of 3 099 086. Round this to the nearest hundred thousand.

Decimal places and significant figures

Fill in the table below

	Round to		
Number	3 d.p.	2 d.p.	1 d.p.
3.1415926536			
1.4142135624			
137.035999139			
0.0582139642			
0.0490239887			
$\sqrt{(30)} \approx 5.4772255751$			
$\dfrac{1+\sqrt{(5)}}{2} \approx 1.6180339887$			
4.669201609103			
97.995231367			

Fill in the table below

	Round to		
Number	3 s.f.	2 s.f.	1 s.f.
20 173			
451 803			
197.35			
12.56792			
18.27098			
0.71692356			
0.0004513098			
0.052956821			
0.0705239817			

Standard form

1) Write 47 000 as a number in standard form

2) Convert 4.2×10^6 from standard form

3) Write 3 210 as a number in standard form

4) Convert 7.25×10^4 from standard form

5) Work out $2 \times 10^3 \times 4 \times 10^6$ and write the answer in standard form

6) Write 0.0056 as a number in standard form

7) Convert 3.1×10^{-4} from standard form

8) Write 0.000045 as a number in standard form

9) Convert 8.25×10^{-1} from standard form

10) Work out $3 \times 10^{-4} \times 9 \times 10^3$ and write the answer in standard form.

Comparing decimals

1) Find half way between 3.5 and 3.6

2) Write these numbers in order of size starting with the smallest
   0.301,   3.01,   0.31,   0.031,   0.03

3) Calculate half way between 14.7 and 14.75
   Hint fill in with zeros so both numbers have 2 d.p.

4) Put these numbers in ascending order
   7,   7.05,   7.5,   0.075,   0.705

5) Calculate half way between 67.05 and 67.8
   Hint: fill in with zeros up to 3 d.p.

6) Put these numbers in order of size starting with the smallest
   175,   17.5,   17.05,   1.75,   0.175

7) Calculate half way between 23.7 and 36.25
   Hint: fill in with zeros to 3 d.p.

Find the value of a fraction

Non-calculator and show working as usual!

1) Find $\dfrac{3}{4}$ of £700

2) Find $\dfrac{2}{3}$ of £17.16

3) In a survey, two-thirds of those asked agreed with the proposal to plant more trees in the Centre gardens.
   The survey was given to 159 people.
   How many people did *not* agree to the proposal?

4) 60 balloons are released in a celebration.

   A $\dfrac{1}{4}$ of the balloons are red

   Two-fifths of the balloons are green
   The remainder of the balloons are yellow.
   How many yellow balloons are there?

5) Kamaljit wins a prize of £600
   She gives half the money to her mother.
   Kamaljit donates one third of the money to a charity
   How much money does Kamaljit have left to spend?

6) Aaron earns £1200 a month take home pay
   One third of the money goes on rent.
   Half the money goes on food and day-to-day expenses
   How much does Aaron have left to pay energy bills and to save?

7) Nusut wins a prize and donates a third of the money to a charity.
   Nusut donated £250.
   How much did Nusut win?

8) Calculate the value of 65% of £800

9) Work out 17.5% of £900