Rounding Numbers
Rounding to the ***th place

DATE:_____

NAME:_____

Examples:

	786452	517.3065	9.9406	0.002499

Round to…

the nearest hundred

the nearest unit

2 decimal places

3 decimal places

Exercise ⬤

1 Write 7463·9 to the nearest:
  a integer   **b** ten   **c** hundred

2 Write 6·4937 correct to:
  a 3 decimal places   **b** 2 decimal places   **c** 1 decimal place

3 Approximate 78·375 to:
  a the nearest integer   **b** 1 decimal place   **c** 2 decimal places

4 Approximate 70 494 to the nearest:
  a thousand   **b** hundred   **c** ten

5 Round off 62·905 84 correct to:
  a 3 decimal places   **b** 1 decimal place   **c** 2 decimal places

6 Round off 76 538 to the nearest:
  a ten   **b** hundred   **c** thousand

7 Approximate 128·0497 to:
  a the nearest integer   **b** the nearest ten   **c** 3 decimal places

8 Approximate 96·8624 to:
  a the nearest integer   **b** 1 decimal place   **c** 3 decimal places

ANSWERS

Round to…	786452	517.3065	9.9406	0.002499
the nearest hundred	786 500	500	0	0
the nearest unit	786 452	517	10	0
2 decimal places	✕	517.31	9.94	0.00
3 decimal places	✕	517.307	9.941	0.002

1 a 7464   b 7460   c 7500
3 a 78   b 78·4   c 78·38
5 a 62·906   b 62·9   c 62·91
7 a 128   b 130   c 128·050

2 a 6·494   b 6·49   c 6·5
4 a 70 000   b 70 500   c 70 490
6 a 76 540   b 76 500   c 77 000
8 a 97   b 96·9   c 96·862

(10+) Significant Figures   DATE:_____

NAME:_____

Rules for Determining Significant Figures

1. Counting from the left, the first non-zero digit is the first significant figure.

2. All figures following the first significant figure are also significant unless

  a) Final zeros in a whole number are not significant.

  b) Final zeros after the decimal point are significant.

Round the following numbers to 3 significant figures:

5432	12560	6045	4005

0.002437	0.0207	0.02007	$0.\dot{5}\dot{6}$

How many significant figures are there in each of the following numerals?

a 2·1   **b** 1·76   **c** 9·05   **d** 0·62   **e** 7·305   **f** 0·104

g 3·6   **h** 3·60   **i** 0·002   **j** 0·056   **k** 0·04   **l** 0·40

m 0·00471   **n** 3·040   **o** 0·5   **p** 304   **q** 7001   **r** 0·001 50

s 0·000 000 125   **t** 0·000 000 100   **u** 0·000 000 001

1 Write these numbers correct to 2 significant figures.
  a 648   **b** 34.78   **c** 7.082   **d** 0.0557   **e** 36 578

2 Write these numbers correct to 3 significant figures.
  a 4879   **b** 21.036   **c** 345.88   **d** 21.675   **e** 0.004 776

3 Write these numbers correct to 2 significant figures.
  a 399   **b** 0.205   **c** 7577   **d** 2.963   **e** 15.09

4 Write these numbers correct to 3 significant figures.
  a 4599   **b** 0.005 996   **c** 2.000 47   **d** 1.9956   **e** 21.97

Answers on Back

ANSWERS to Front

a 2	**b** 3	**c** 3	**d** 2	**e** 4	**f** 3	**g** 2	**h** 3	**i** 1
j 2	**k** 1	**l** 2	**m** 3	**n** 4	**o** 1	**p** 3	**q** 4	**r** 3
s 3	**t** 3	**u** 1

1 a 650 **b** 35 **c** 7.1 **d** 0.056 **e** 37 000

2 a 4880 **b** 21.0 **c** 346 **d** 21.7 **e** 0.004 78

3 a 400 **b** 0.21 **c** 7600 **d** 3.0 **e** 15

4 a 4600 **b** 0.006 00 **c** 2.00
   d 2.00 **e** 22.0

5 Write these numbers correct to 1 significant figure.

   a 16.3 **b** 4.7 **c** 24.9 **d** 7.7 **e** 8.5

6 Write these numbers correct to 1 significant figure.

   a 0.61 **b** 0.77 **c** 0.45 **d** 0.056 **e** 0.0079

7 Work out an estimate for the value of each of these expressions by first rounding the numbers to 1 significant figure.

   a 3.4×4.9 **b** 5.4×3.8 **c** 9.4×9.9 **d** 13.4×3.9 **e** 24.4×4.7

8 Work out an estimate for the value of each of these expressions by first writing the numbers correct to 1 significant figure.

   a $211 \div 12$ **b** $346 \div 3.2$ **c** $985 \div 478$ **d** $377 \div 48$ **e** $2334 \div 12.9$

9 Work out an estimate for the value of each of these expressions by first rounding the numbers to 1 significant figure.

   a $\dfrac{5.4 \times 9.9}{10.1}$ **b** $\dfrac{9.8 \times 4.9}{5.1}$ **c** $\dfrac{16.4 \times 9.9}{16.8}$ **d** $\dfrac{6.8 \times 19.9}{12.1}$ **e** $\dfrac{17.4 \times 20.3}{38.7}$

ANSWERS

1 a 650 **b** 35 **c** 7.1 **d** 0.056 **e** 37 000

2 a 4880 **b** 21.0 **c** 346 **d** 21.7 **e** 0.004 78

3 a 400 **b** 0.21 **c** 7600 **d** 3.0 **e** 15

4 a 4600 **b** 0.006 00 **c** 2.00
   d 2.00 **e** 22.0

5 a 20 **b** 5 **c** 20 **d** 8 **e** 9

6 a 0.6 **b** 0.8 **c** 0.5 **d** 0.06 **e** 0.008

7 a 15 **b** 20 **c** 90 **d** 40 **e** 100

8 a 20 **b** 100 **c** 2 **d** 8 **e** 200

9 a 5 **b** 10 **c** 10 **d** 14 **e** 10