



**What you will learn**

- Round numbers to a given place value, decimal place, or significant figure.
- Estimate answers to problems by rounding numbers prior to doing calculations.

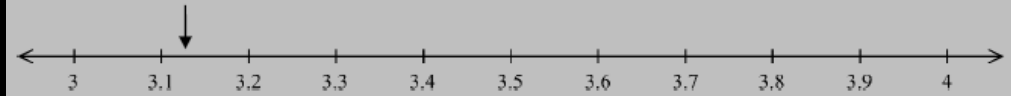
3. Complete the table below:

	Round to the nearest whole number	Round to 1 decimal place	Round to 2 decimal places	Round to 3 decimal places
58.473178				
98.6577501				
348.9876				
2.7802				
0.499989				

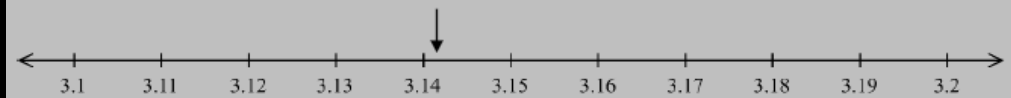
**Concept corner**

$\pi = 3.14159265359\dots$

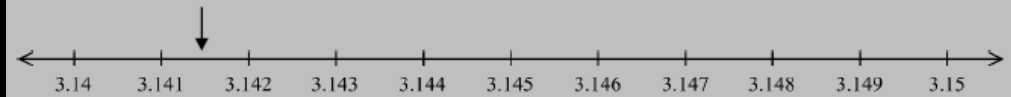
Round  $\pi$  to 1 decimal place



Round  $\pi$  to 2 decimal places



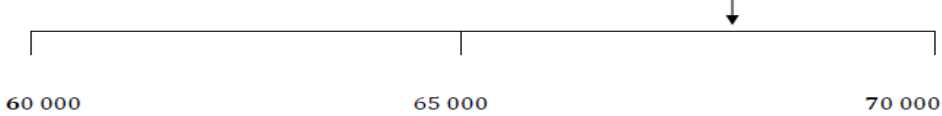
Round  $\pi$  to 3 decimal places



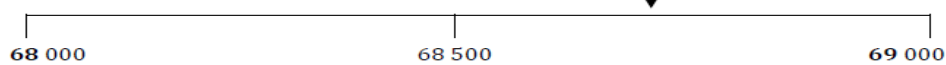
**Concept corner**

Numbers can also be rounded to a **given number of significant figures**. The first significant figure of a number is the **first digit which is not a zero**.

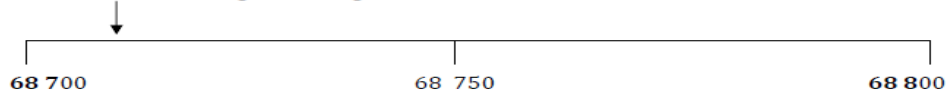
Round 68 706 to 1 significant figure



Round 68 706 to 2 significant figure

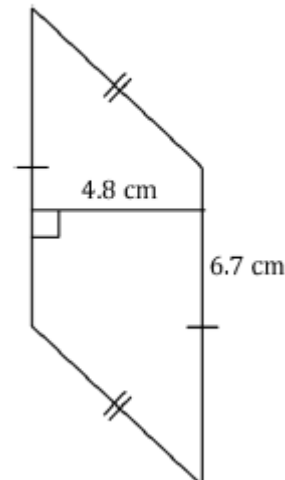


Round 68 706 to 3 significant figure

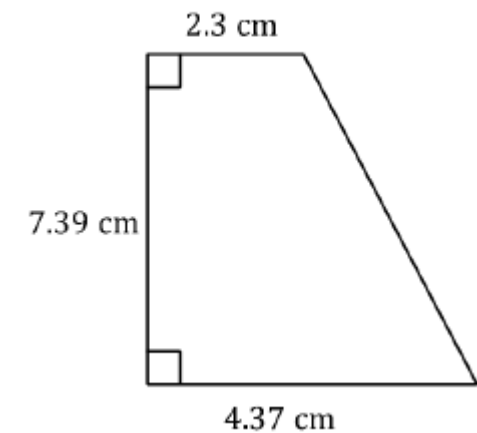


**Estimate the area of each shape**

**Shape A**



**Shape B**





## Year 8 Summer 1 Unit 1 Rounding, significant figures, and estimation



Choose the correct answer for each of these questions:

1. Round 0.245 to 2 significant figures

0.2                      0.3                      0.24                      0.25

2. Round 4409 to 3 significant figures

441                      4400                      4410                      4409

3. Round 7.005 to 2 significant figures

7.0                      7.005                      7.01                      7.015

4. Round 80.659 to 3 significant figures

80.6                      80.7                      81                      80.66

If  $x = 2.87$  and  $y = 34\,724$  estimate the value of

a)  $xy$

.....

b)  $\frac{y}{x}$

.....

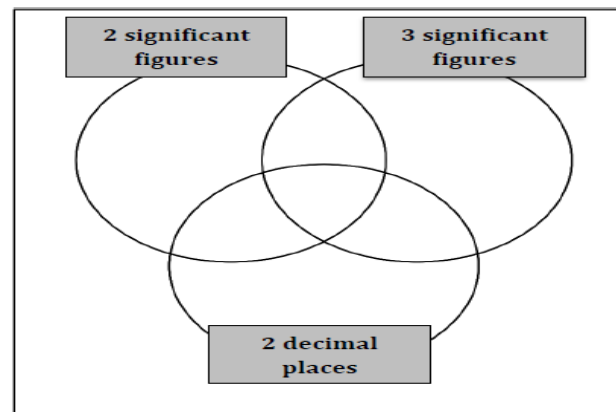
c) Calculate the value of the expressions in parts (a) and (b) and round your answers to 3 significant figures.

Complete the table below. Some entries are done for you.

Number	Round to 3 significant figures	Round to 2 significant figures	Round to 1 significant figure
4213			
23.65		24	
0.04654	0.0465		
0.009231			
0.9649			
0.4054			
0.005007			0.005

Place the numbers you can in the correct set in the Venn diagram.

872.07      0.9              2.01              5.62              0.36              6.1  
3001              30.01              31              30.1              0.09



Which sections are impossible to fill? Why?

**Answers to questions—see Mr CJ or your teacher for solutions**