

Y10 FOUNDATION HT1 APPROXIMATIONS

Rounding **R**

2.46192 (to 2dp) - Is this closer to 2.46 or 2.47



2.46 | 192

This shows the number is closer to 2.46

Significant Figures

- 370 to 1 significant figure is 400
- 37 to 1 significant figure is 40
- 3.7 to 1 significant figure is 4
- 0.37 to 1 significant figure is 0.4
- 0.00000037 to 1 significant figure is 0.0000004

SF: Round to the first nonzero number

Round to 1 significant figure

- 370 to 1 significant figure is 400
- 37 to 1 significant figure is 40
- 3.7 to 1 significant figure is 4
- 0.37 to 1 significant figure is 0.4
- 0.00000037 to 1 significant figure is 0.0000004

Round to the first non zero number

Integer Place Value

Billions			Millions			Thousands			Ones			
H	T	O	H	T	O	H	T	O	H	T	O	
			3	1	4	8	0	3	3	0	2	9

Placeholder

Three billion, one hundred and forty eight million, thirty three thousand and twenty nine

1 billion 1,000,000,000

1 million 1,000,000

Estimation **R**

Round to 1 significant figure to estimate

$$21.4 \times 3.1 \approx 20 \times 3 \approx 60$$

The equal sign changes to show it is an estimation

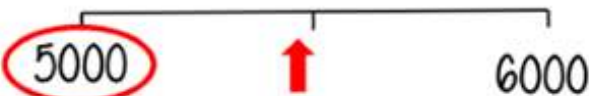
This is an **underestimate** because both values were rounded down

It is good to check all calculations with an estimate in all aspects of maths - it helps you identify calculation errors.

Rounding to the nearest power of ten

If the number is halfway between we "round up"

5495 to the nearest 1000



5475 to the nearest 100



5475 to the nearest 10

