

Place value, ordering and rounding

Key Vocabulary

Integer—A whole number

Power of 10 — e.g. 10^2 , 10^3 , 10^4 etc.

Approximate— A rough idea of an actual answer

Estimate— Using rounded values to be able to calculate an answer to give you an idea of the answer

Ascending—Going from smallest to largest

Descending—Going from largest to smallest

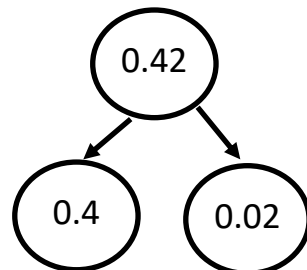
Round—Replace a value with an approximate value

Place Value

O	•	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
0	•	2	3	2

$$0.2 = \frac{2}{10}$$

$$0.232 = \frac{232}{1000}$$



Comparing numbers

$$34,000 > 23,000$$

34,000 is greater than 23,000

$$6 + 8 = 3 + 11$$

$$14 \quad 14$$

$$4 \times 5 \neq 30$$

Rounding

$$23 \approx 20 \text{ to the nearest } 10$$

$$4.87 \approx 4.8 \text{ to } 1 \text{ decimal place}$$

When rounding look to the next column from where you are rounding too.

If the digit is 5 or above round up

Standard Form

Usually used to write large or very small numbers.

$$A \times 10^n$$

Needs to be a number between 1 and 10, but it cannot include 10.

$$4200 = 4.2 \times 10^3$$

$$0.0023 = 2.3 \times 10^{-3}$$

Powers of 10

$$10^4 = 10 \times 10 \times 10 \times 10 = 1000$$

$$10^3 = 10 \times 10 \times 10 = 1000$$

$$10^2 = 10 \times 10 = 100$$

$$10^1 = 10$$

$$10^0 = 1$$

$$10^{-1} = \frac{1}{10} = 0.1$$

$$10^{-2} = \frac{1}{100} = 0.01$$