Area of a Circle and Trapezium, Reflections and Averages

Year 8 Term 6

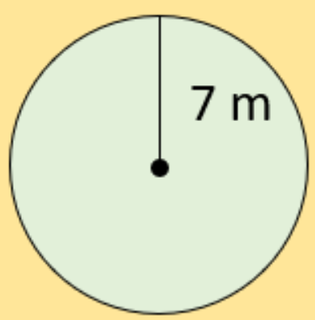
Trinity Academy Bradford | Trinity Academy Halifax

(1) Key Terms

Radius	A line **from the centre** of a circle to a point on the circumference.
Diameter	The line from one point on the circumference to another point on the circumference going **through the centre**
Object	In Enlargements, the shape that **is to be** transformed.
Image	In Enlargements, the shape that **has been** transformed.
Averages	A single number that best represents the typical value of a set of data.

(2) Area of a Circle

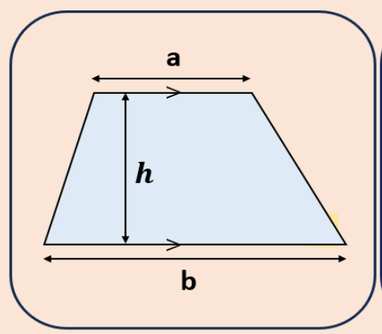
$$\text{Area of a circle} = \pi r^2$$

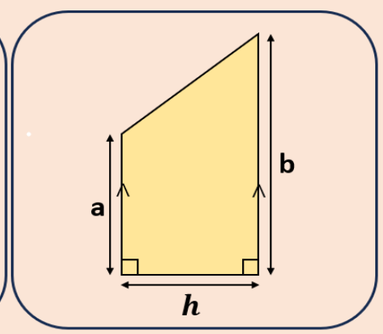


$$= \pi \times 7^2$$
$$= \pi \times 49$$
$$= 49\pi \text{ m}^2$$

This answer is written in **terms of pi.**

(3) Area of a Trapezium



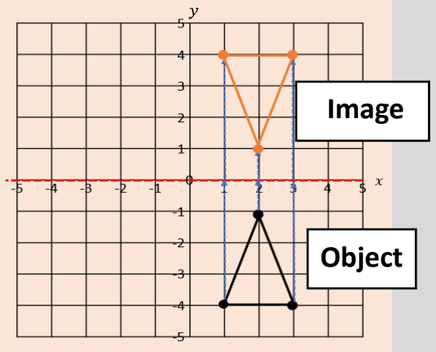


$$Area\ of\ a\ Trapezium = \left(\frac{a+b}{2}\right)h$$

Half the sum of the parallel sides multiplied by the height.

(4) Reflections

Reflect the triangle in the x-axis



The blue lines are just to show that each of the corresponding corners **(vertices)** are the **same distance** from the **line of reflection**.

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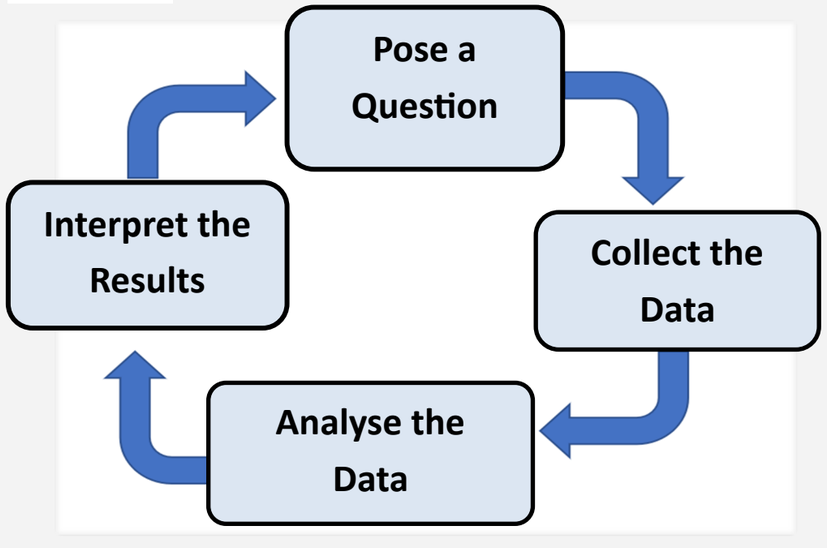
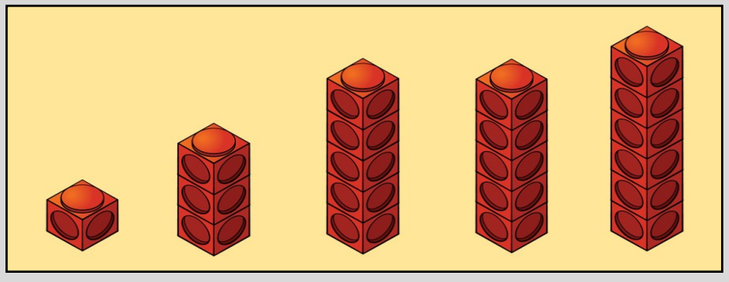
(5) The Data Handling Cycle

When you pose a question you then create a **Hypothesis** written in the form of a statement.



(6) Types of Averages



Mode = 5	The **most common** number of cubes in the towers is **five**.
Median = 5	When placed in **ascending order** of height, the median is the **middle** tower. 1 ,3, 5, 5,6
Mean = 4	**Sum** the total number of cubes and then **divide** them into five towers. $\frac{1+3+5+5+6}{5} = \frac{20}{5} = 4$