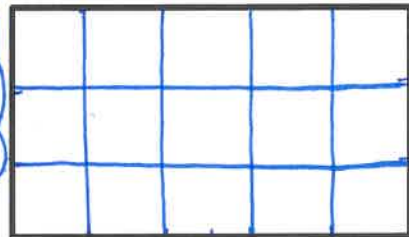


Chapter 2: Surface Area

Reference - Area of shapes

Squares and Rectangles



5. Area - 5cm.

Formula

area = length $\times$ width

$$A = l \times w$$

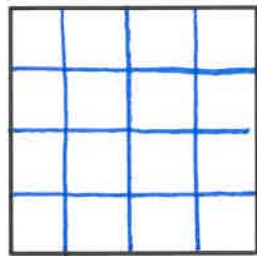
$$A = lw$$

Example

$$A = L \times w$$

$$= 5\text{cm} \times 3\text{cm}$$

$$= 15\text{cm}^2$$



4cm

area = side $\times$ side

$$A = s \times s$$

$$A = s^2$$

$$A = s \times s$$

$$= s^2$$

$$= (4\text{cm})^2$$

$$= 16\text{cm}^2$$

SAME Thing

$$A = L \times w$$

$$= 4\text{cm} \times 4\text{cm}$$

$$= 16\text{cm}^2$$

Triangles

Formula

$$\text{area} = \frac{\text{base} \times \text{height}}{2}$$

$$A = \frac{b \times h}{2}$$

$$A = \frac{b \cdot h}{2}$$

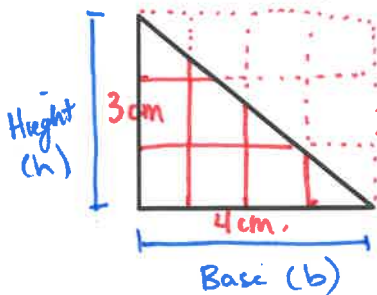
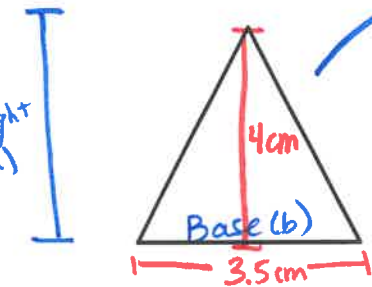
Example

$$A = \frac{b \times h}{2}$$

$$= \frac{3.5\text{cm} \times 4\text{cm}}{2}$$

$$= \frac{14\text{cm}^2}{2}$$

$$= 7\text{cm}^2$$



$$A = \frac{b \times h}{2}$$

$$= \frac{3\text{cm} \times 4\text{cm}}{2}$$

$$= \frac{12\text{cm}^2}{2}$$

$$= 6\text{cm}^2$$

Base $\times$ Height = area
of a square (same idea
as length $\times$ width).

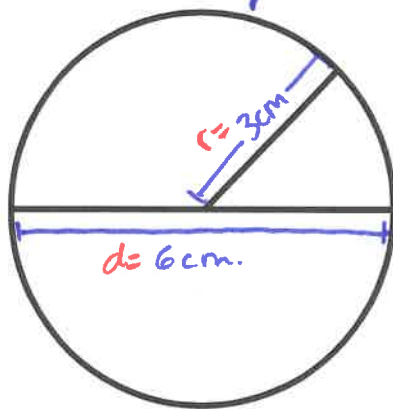
↳ cut in half to get
the area of a triangle.

Name:

Math 8

Date:

Circles



Formula

$$\pi(\text{pi}) = 3.14\text{.....}$$

$$\text{Area} = \pi \times \text{radius} \times \text{radius}$$

$$A = \pi \times r^2$$

$$A = \pi \cdot r^2$$

$$A = \pi r^2$$

Example

$$\begin{aligned} A &= \pi \times r^2 \\ &= \pi \times (3\text{ cm})^2 \\ &= \pi \times 9\text{ cm}^2 \\ &= 28.27\text{ cm}^2 \end{aligned}$$

diameter (d) = width of circle through the center point.

radius (r) = distance from center of circle to the edge.

• half the length of diameter

$$d = 2 \cdot r$$

$$r = \frac{d}{2}$$