Name : _____

Subject: Math study sheet (3)

Date :   / 9 / 2025

Grade : 8 (   )

❖ Area and perimeter

### Area

rectangle
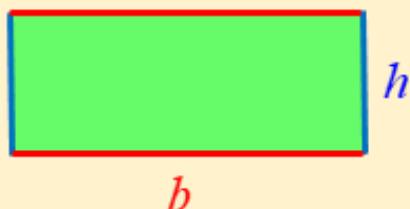
$$A = bh$$

parallelogram
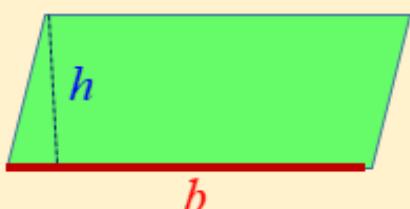
$$A = bh$$

triangle
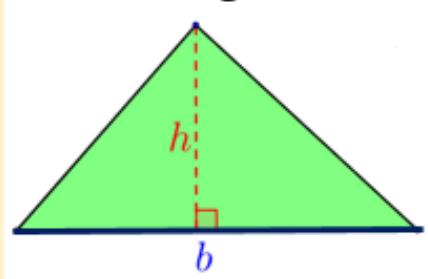
$$A = \frac{1}{2}bh$$

trapezoid
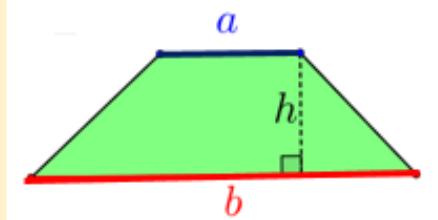
$$A = \frac{1}{2}(a+b)h$$

Perimeter = Total sum of all sides.

❖ Surface area and volume

Prism: -

Surface area= total area of all its faces

Volume = area of cross section ×length
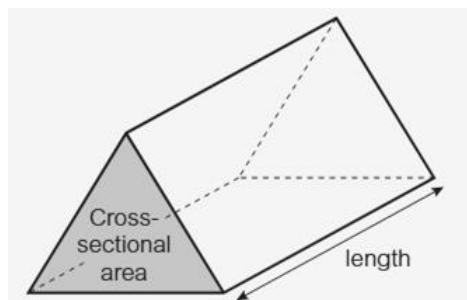
Cylinder: -

Surface area $= 2\pi r^2 + = 2\pi rh$

Volume $= = \pi r^2 h$
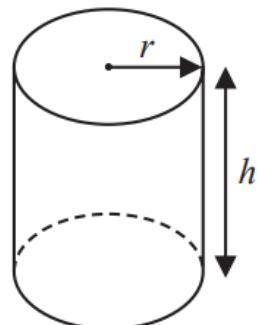
❖ Parts of a circle

### Parts of a Circle
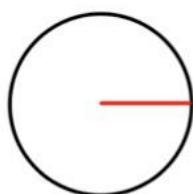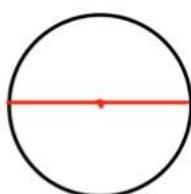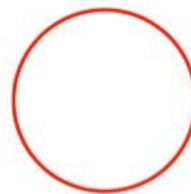
Radius   Diameter   Circumference
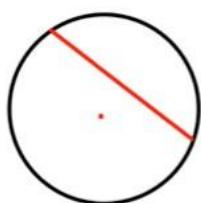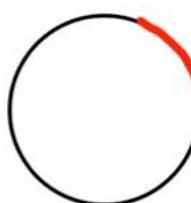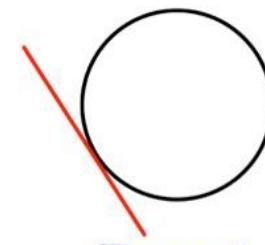
Chord   Arc   Tangent
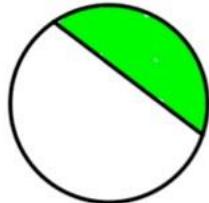
Segment   Sector

Parts of a Circle

Circumference

Radius

Arc

Sector

Diameter

Center

Chord

Segment

Tangent
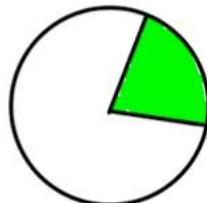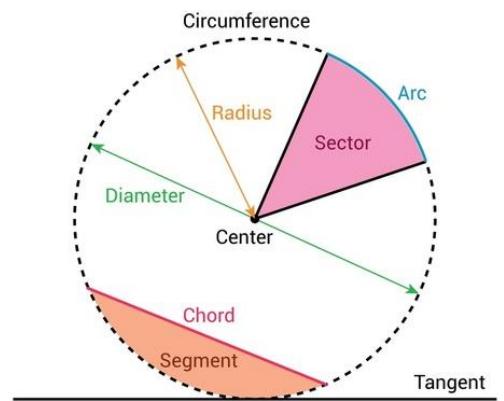
❖ Area and circumference of a circle

C = circumference

r = radius

d = diameter

d = 2 × r

$$C = \pi \times d \quad \text{or} \quad C = 2 \times \pi \times r$$

$\pi = 3.14$

$\pi = \dfrac{22}{7}$ or π on your calculator

Area of a Circle

radius

diameter

center

circumference

$$A = \pi r^2$$

❖ Pythagoras theorem

leg

hypotenuse

c

a

b

leg

$$a^2 + b^2 = c^2$$

c

hypotenuse

a

b

90°
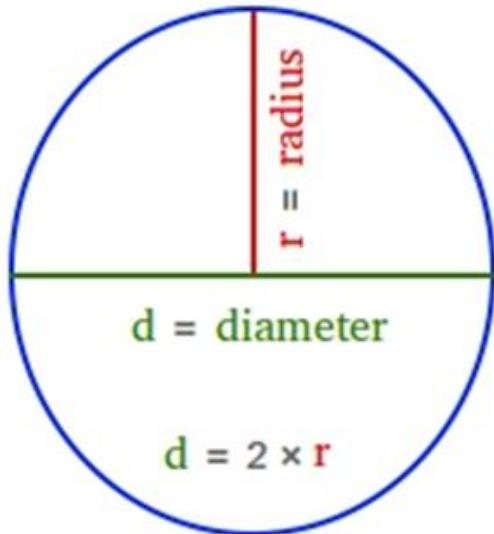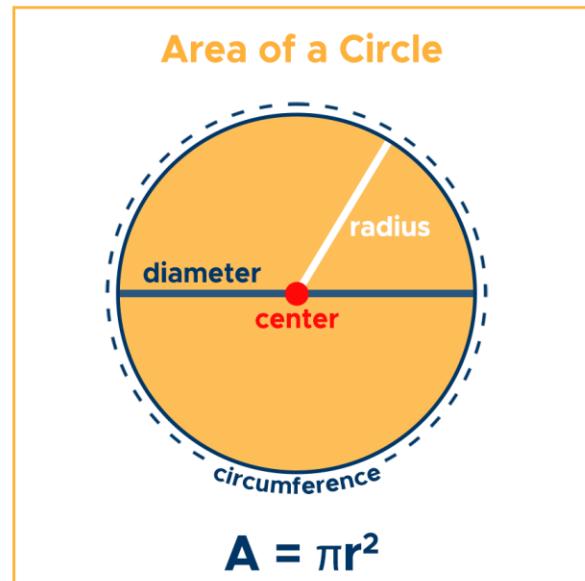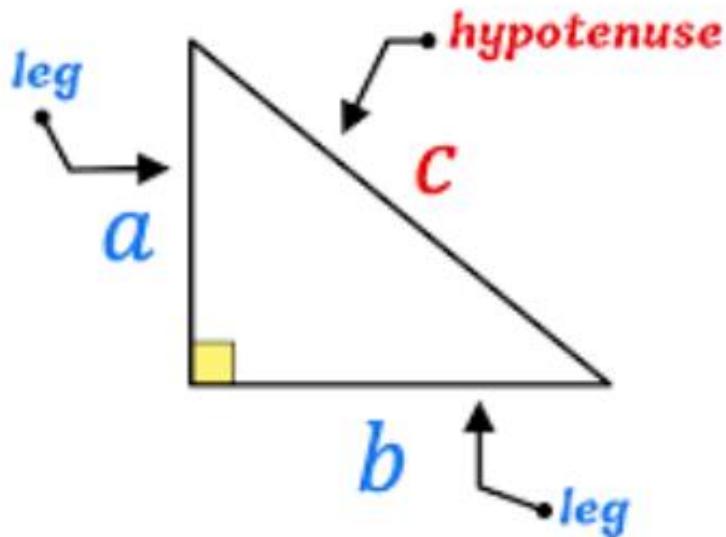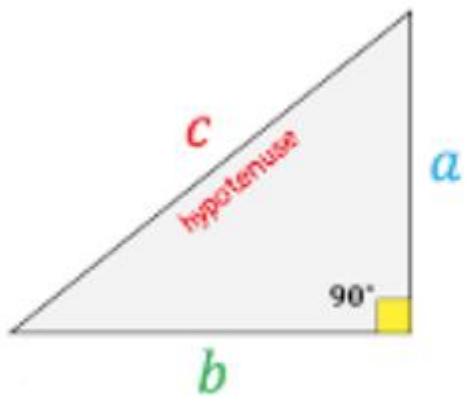
$$c^2 = a^2 + b^2$$

★ $c = \sqrt{a^2 + b^2}$

★ $a = \sqrt{c^2 - b^2}$

★ $b = \sqrt{c^2 - a^2}$
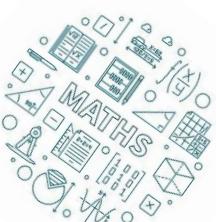
Teacher : Sally Serkisian