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TUTORING AND EDUCATION CONSULTING

GEOMETRY SYMBOLS & VOCABULARY

COMMON SYMBOLS

Example	Meaning
$\angle A$	angle A
$\mathrm{m}\angle A$	measure of angle A
$\overline{AB}$	line segment AB
AB	measure of line segment
$\overleftrightarrow{AB}$	line
$\triangle ABC$	triangle ABC
$\square ABCD$	rectangle $ABCD$
$\square ABCD$	parallelogram $ABCD$

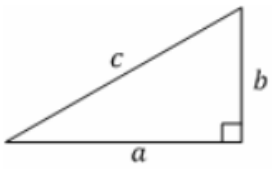
Example	Meaning
$\overrightarrow{AB}$	vector AB
	right
$\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$	Line AB is parallel to line CD.
$\overleftrightarrow{AB} \perp \overleftrightarrow{CD}$	Line AB is perpendicular to line CD.
$\angle A \cong \angle B$	Angle A is congruent to angle B.
$\triangle A \sim \triangle B$	Triangle A is similar to triangle B.
	Similarly marked segments are congruent.
	Similarly marked angles are congruent.

PREVIEW

COMMON FORMULAS

PYTHAGOREAN THEOREM

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



TRIG FUNCTIONS

$$\sin(A) = \frac{\text{opposite side}}{\text{hypotenuse}}$$

$$\cos(A) = \frac{\text{adjacent side}}{\text{hypotenuse}}$$

$$\tan(A) = \frac{\text{opposite side}}{\text{adjacent side}}$$

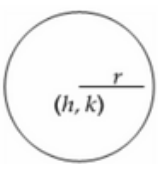
AREA OF A CIRCLE SECTOR

$$A = \frac{x}{360}\pi r^2$$

ARC LENGTH OF A CIRCLE

$$l = \frac{x}{360}2\pi r$$

CIRCLES



Area $= \pi r^2$

Circumference $= 2\pi r$

Full circle $= 360°$

CIRCLE EQUATION

$$(x - h)^2 + (y - k)^2 = r^2$$

RADIANS & DEGREES

Degrees→ radians

× by $\frac{\pi}{180}$

Radians→ degrees

× by $\frac{180}{\pi}$

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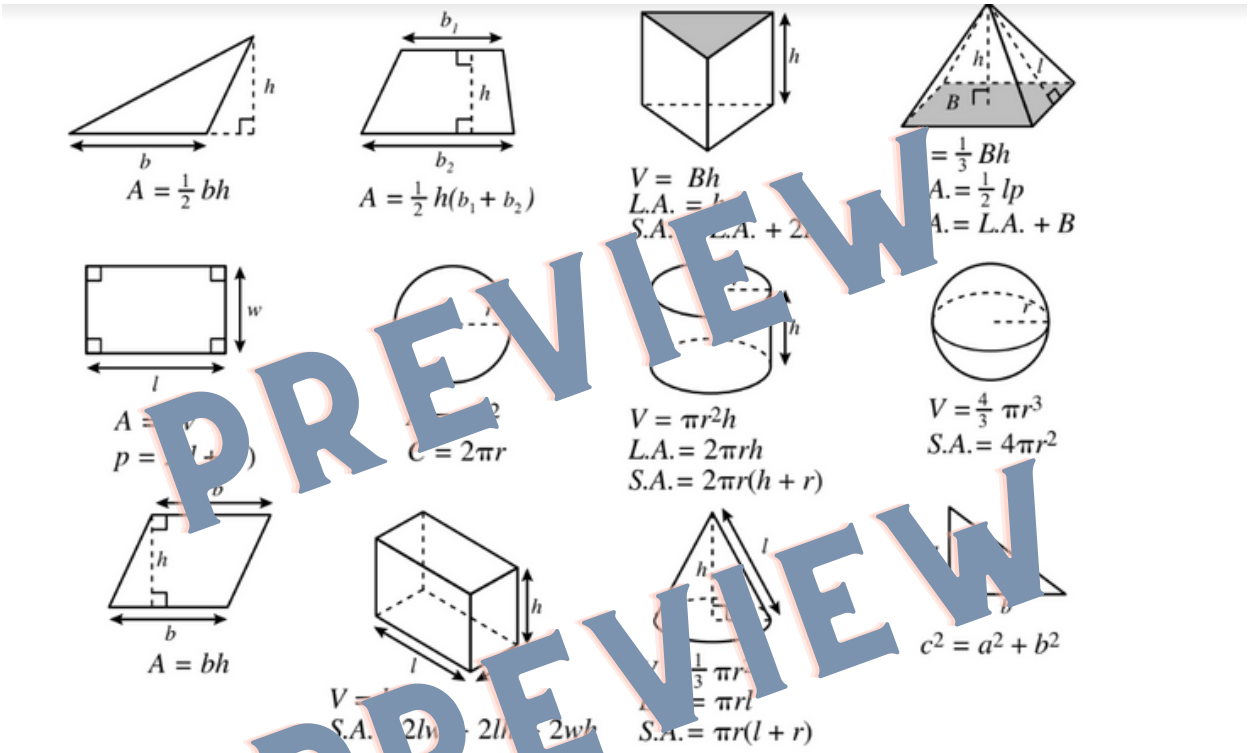
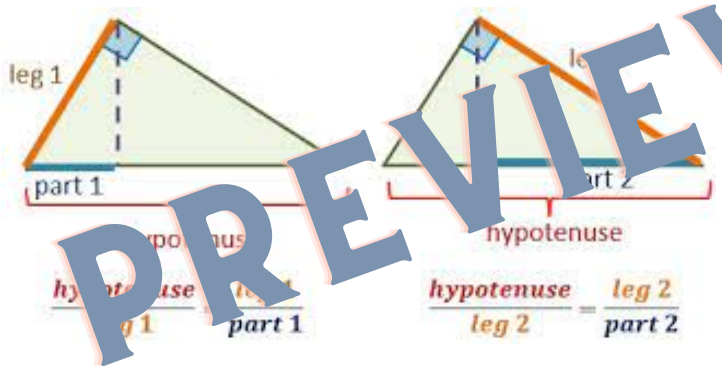
GEOMETRY MATH FORMULAS

Areas



PREVIEW
PREVIEW
PREVIEW

ALTITUDE



GEOMETRIC MEAN

Quick formula

$$x = \sqrt{ab}$$

Alternate formulas

$$\frac{a}{x} = \frac{x}{b} \qquad x^2 = ab$$