

Ohio Graduation Test Mathematics Reference Sheet

Information that may be needed to solve problems on the Mathematics Test:

Area Formulas

parallelogram	$A = bh$	trapezoid	$A = \frac{1}{2}h(b_1 + b_2)$
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rectangle	$A = lw$	triangle	$A = \frac{1}{2}bh$
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Volume Formulas

cone	$V = \frac{1}{3}\pi r^2 h$
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cylinder	$V = \pi r^2 h$
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pyramid	$V = \frac{1}{3}Bh$	$B =$ area of base
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rectangular prism	$V = lwh$
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right prism	$V = Bh$	$B =$ area of base
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sphere	$V = \frac{4}{3}\pi r^3$
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Additional Formulas on Reverse

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Combinations

$${}_n C_r = C(n, r) = \frac{n!}{r!(n-r)!}$$

Distance Formula

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Permutations

$${}_n P_r = P(n, r) = \frac{n!}{(n-r)!}$$

Quadratic Formula

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Circle Formulas

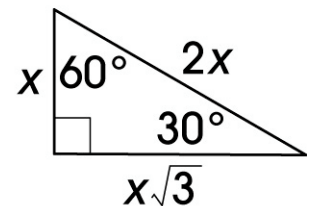
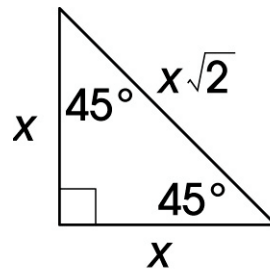
$$C = 2\pi r \quad A = \pi r^2 \quad \pi \approx 3.14 \text{ or } \frac{22}{7}$$

Trigonometry

$$\sin A = \frac{\textit{opposite}}{\textit{hypotenuse}}$$

$$\cos A = \frac{\textit{adjacent}}{\textit{hypotenuse}}$$

$$\tan A = \frac{\textit{opposite}}{\textit{adjacent}}$$



Additional Formulas on Reverse