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Use the information below to answer questions on the Alabama High School Graduation Exam.

Some Abbreviations Used in Formulas

b_1,b_2 = bases of a trapezoid
b = base of a polygon
h = height or altitude
l = length
w = width


symbol for a right angle

***m*∠** = the measure of an angle

A = area
C = circumference
r = radius
d = diameter
π = 3.14
P = perimeter
D = distance
M = midpoint
m = slope

S.A. = surface area
V = volume
B = area of the base
S = sum of interior angles of a convex polygon
n = number of sides of a convex polygon

Formulas

Triangle: $\mathbf{A} = \frac{1}{2}\mathbf{bh}$

Parallelogram: $\mathbf{A} = \mathbf{bh}$

Rectangle: $\mathbf{A} = \mathbf{lw}$

Trapezoid: $\mathbf{A} = \frac{1}{2}\mathbf{h}(\mathbf{b_1} + \mathbf{b_2})$

Circle: $\mathbf{C} = \pi\mathbf{d}$
$\mathbf{C} = 2\pi\mathbf{r}$
$\mathbf{A} = \pi\mathbf{r^2}$

Distance = rate • time

Interest = principal • rate • time

Distance Formula: $\mathbf{D} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

Midpoint Formula: $\mathbf{M} = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$

Slope Formula: $\mathbf{m} = \frac{y_2 - y_1}{x_2 - x_1}$

Sum of Measures of Interior Angles of a Convex Polygon: $\mathbf{S} = 180(\mathbf{n} - 2)$

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

Pythagorean Theorem: $\mathbf{c^2} = \mathbf{a^2} + \mathbf{b^2}$

	Surface Area	Volume
Rectangular Prism	**S.A. = Ph** + 2**B** or **S.A. =** 2(**wh** + **lh** + **lw**)	**V = Bh** or **V = lwh**
Cylinder	**S.A. =** 2π**rh** + 2π**r²**	**V =** π**r²h**

Forms of Equations

Standard form of an equation of a line: $Ax + By = C$

Slope-intercept form of an equation of a line: $y = \mathbf{m}x + b$

Point-slope form of an equation of a line: $y - y_1 = \mathbf{m}(x - x_1)$