Georgia Milestones Assessment System

Analytic Geometry Formula Sheet

Below are the formulas you may find useful as you work the problems. However, some of the formulas may not be used. You may refer to this page as you take the test.

Area

Rectangle/Parallelogram $A = bh$

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

Circle $A = \pi r^2$

Circumference

$C = \pi d \quad \pi \approx 3.14$

$C = 2\pi r$

Volume

Rectangular Prism/Cylinder $V = Bh$

Pyramid/Cone $V = \frac{1}{3}Bh$

Sphere $V = \frac{4}{3}\pi r^3$

Surface Area

Rectangular Prism $SA = 2lw + 2wh + 2lh$

Cylinder $SA = 2\pi r^2 + 2\pi rh$

Sphere $SA = 4\pi r^2$

Trigonometric Relationships

$\sin(\theta) = \frac{\text{opp}}{\text{hyp}}; \ \cos(\theta) = \frac{\text{adj}}{\text{hyp}}; \ \tan(\theta) = \frac{\text{opp}}{\text{adj}}$

Quadratic Equations

Standard Form: $y = ax^2 + bx + c$

Vertex Form: $y = a(x-h)^2 + k$

Quadratic Formula

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

Conic Sections

Parabola: $y - k = \frac{1}{4p}(x-h)^2$

$x - h = \frac{1}{4p}(y-k)^2$

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

Distance Formula

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

Conditional Probability

$$P(A|B) = \frac{P(A \text{ and } B)}{P(B)}$$