

Name: \_\_\_\_\_

<b>Formula Sheet</b>
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**Geometry**

$$P = 2l + 2w$$

$$C = 2\pi r$$

$$A = lw$$

$$A = 0.5 bh$$

$$A = 0.5 (b_1 + b_2)h$$

$$A = \pi r^2$$

$$A = \pi r^2 + \pi rl$$

$$A = 4\pi r^2$$

$$A = 2\pi r^2 + 2\pi rh$$

$$V = lwh$$

$$V = A_b h$$

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

$$V = \pi r^2 h$$

$$V = \frac{\pi r^2 h}{3}$$

**Coordinate Geometry**

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

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$Pm = \left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

$$y = mx + b$$

**Conversions**

$$1 \text{ ft} = 12 \text{ in.}$$

$$1 \text{ yd} = 3 \text{ ft} = 36 \text{ in.}$$

$$1 \text{ mi} = 5280 \text{ ft}$$

$$1 \text{ in.} = 2.54 \text{ cm}$$

$$1 \text{ mi} = 1.61 \text{ km}$$

$$1 \text{ yd} = 0.914 \text{ m}$$

$$1 \text{ cm} = 10 \text{ mm}$$

$$1 \text{ m} = 100 \text{ cm}$$

$$1 \text{ km} = 1000 \text{ m}$$

**Trigonometry**

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$a^2 = b^2 + c^2 - 2bc(\cos A)$$

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

$$\sin \theta = \frac{\text{opp}}{\text{hyp}}$$

$$\cos \theta = \frac{\text{adj}}{\text{hyp}}$$

$$\tan \theta = \frac{\text{opp}}{\text{adj}}$$