## Formula Sheet

Formulas that you may need to work questions in this document are found below.
You may use calculator $\pi$ or the number 3.14.

$V=l w h$

## Linear Equations

Slope: $m=\frac{y_{2}-y_{1}}{x_{2}-x_{1}}$
Point-Slope Formula: $\quad\left(y-y_{1}\right)=m\left(x-x_{1}\right)$

Slope-Intercept Formula: $\quad y=m x+b$

Standard Equation of a Line: $\quad A x+B y=C$

Arithmetic Properties

Additive Inverse: $\quad a+(-a)=0$
Multiplicative Inverse: $\quad a \cdot \frac{1}{a}=1$

Commutative Property: $\quad a+b=b+a$ $a \cdot b=b \cdot a$

Associative Property: $(a+b)+c=a+(b+c)$ $(a \cdot b) \cdot c=a \cdot(b \cdot c)$

Identity Property: $a+0=a$ $a \cdot 1=a$

Distributive Property: $\quad a \cdot(b+c)=a \cdot b+a \cdot c$

Multiplicative Property of Zero: $\quad a \cdot 0=0$

Additive Property of Equality:

$$
\text { If } a=b, \text { then } a+c=b+c
$$

Multiplicative Property of Equality:
If $a=b$, then $a \cdot c=b \cdot c$

