## Algebra I Formula Sheet

Formulas that you may need to solve questions on this exam are found below.
You may use calculator $\pi$ or the number 3.14.


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

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

$$
a \cdot b=b \cdot a
$$

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

$$
(a \cdot b) \cdot c=a \cdot(b \cdot c)
$$

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:
If $a=b$, then $a+c=b+c$

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

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