**INFORMATION ABOUT ALGEBRA I**

FORMULA SHEET

Formulas that you may need to solve questions on this exam are found below.

You may use calculator π or the number 3.14 as an approximation of π.

*w A* = *lw*

*l*

*V* = *lwh*



# Linear Equations

***Slope:*** *m* = *y* 2 – *y* 1

*x* 2 – *x* 1

***Point-Slope Formula:*** (*y* – *y* 1) = *m*(*x* – *x* 1)

***Slope-Intercept Formula:*** *y* = *mx* + *b*

***Standard Equation of a Line:*** *Ax* + *By* = *C*

# Arithmetic Properties

***Additive Inverse:*** *a* + (ˉ*a*) = 0 ***Multiplicative Inverse:*** *a* ·1 = 1 ***Commutative Property:*** *a* + *b* = *b* + *a*

*a*

*a* · *b* = *b* · *a*

***Associative Property:*** (*a* + *b*) + *c* = *a* + (*b* + *c*)

(*a* · *b*) · *c* = *a* · (*b* · *c*)

***Identity Property:*** *a* + 0 = *a*

*a* · 1 = *a*

***Distributive Property:*** *a* · (*b* + *c*) = *a* · *b* + *a* · *c* ***Multiplicative Property of Zero:*** *a* · 0 = 0 ***Additive Property of Equality:***

If *a* = *b*, then *a* + *c* = *b* + *c*

***Multiplicative Property of Equality:***

If *a* = *b*, then *a* · *c* = *b* · *c*

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