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Memory Aid

Manipulates Algebraic Expressions to Analyze Situations

If the questions says…..

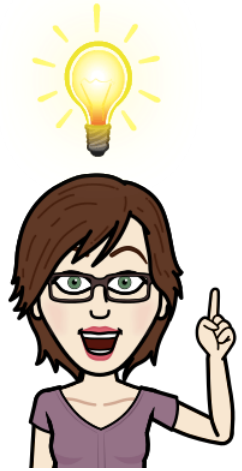
Find the algebraic expression
or
Find the polynomial expression
Answer will be an algebraic expression

Find the numerical value
Build an equation
Answer will be a number

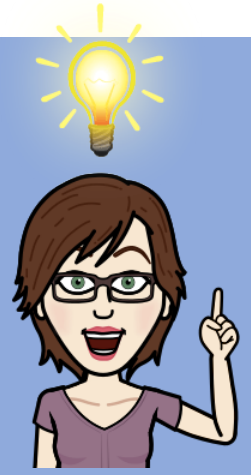
In Algebra..

When the question says "Find the algebraic expression" or "what is the polynomial expression"

Your answer will be algebra



In Algebra..



When you know the area of a rectangle or a square
And you need to find the dimensions

FACTOR

In Algebra..

When you know the area of a rectangle or a square

And you know one dimension

Divide Area by dimension

In Algebra..

When you know the area of a rectangle or a square

And you know one dimension

And it is a polynomial

Long Division

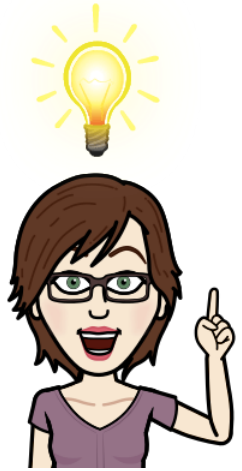
DMS, Rinse and Repeat

In Algebra..

When the figures are equivalent

And it is a 2 dimensional

Areas are equal

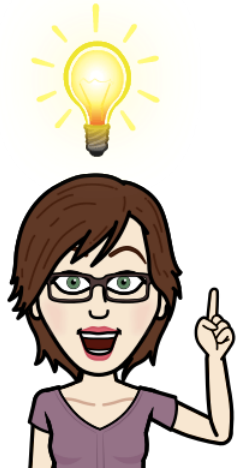


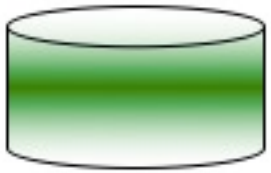
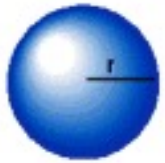
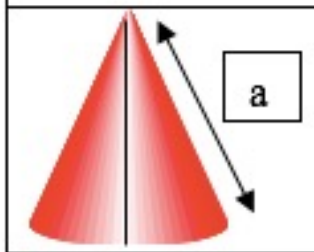
In Algebra..

When the figures are equivalent

And it is a 3 dimensional

Volumes are equal



	Lateral Area	Total Surface Area	Volume
	$LA_{\text{right prism}} = \text{perimeter of base} \bullet \text{height}$	$SA_{\text{right prism}} = 2ac + 2ab + 2bc$ $SA_{\text{right prism}} = LA + \text{area of bases}$	$V_{\text{right prism}} = A_{base} \bullet h$
	$LA_{\text{cylinder}} = \text{perimeter of base} \bullet \text{height}$ $LA_{\text{cylinder}} = 2\pi r \bullet \text{height}$	$SA_{\text{cylinder}} = 2\pi r^2 + 2\pi rh$	$V_{\text{cylinder}} = A_{base} \bullet h$ $V_{\text{cylinder}} = \pi r^2 \bullet h$
		$SA_{\text{sphere}} = 4\pi r^2$	$V_{\text{sphere}} = \frac{4\pi r^3}{3}$
	$LA_{\text{cone}} = \pi ra$	$SA_{\text{cone}} = \pi r^2 + \pi ra$	$V_{\text{cone}} = \frac{A_{base} \bullet h}{3}$ $V_{\text{cone}} = \frac{\pi r^2 \bullet h}{3}$
	$LA_{\text{pyramid}} = \frac{\text{perimeter of base} \bullet a}{2}$	$SA_{\text{pyramid}} = LA + \text{area of bases}$	$V_{\text{pyramid}} = \frac{A_{base} \bullet h}{3}$