
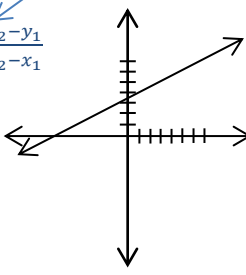
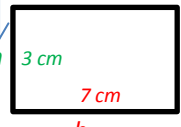
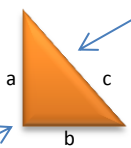
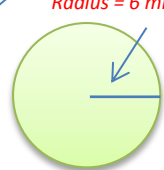
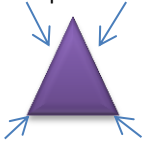
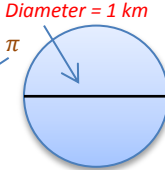
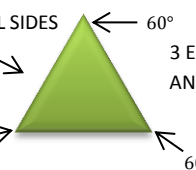


## Volume III

<b>ORDER OF OPERATIONS P.E.M.D.A.S.</b> (Please Excuse My Dear Aunt Sally)																		
Parentheses, Exponents, Multiplication, Division, Addition, Subtraction																		
<p style="text-align: center;"><b>SOLVE FOR x IN TERMS OF y</b></p> $x - 2 = y \rightarrow x = y + 2$  <p style="font-size: small;">Swing the 2 to the other side and change the sign.</p>	<p style="text-align: center;"><b>PROPORTIONS</b></p> <p>6 buckets will feed 4 cows. How many cows will 36 buckets feed?</p> <p>Buckets <math>\rightarrow \frac{6}{4} = \frac{36}{x}</math></p> <p>Cows <math>\rightarrow</math></p> <p style="text-align: center;">Cross multiply and solve for x.</p> $6x = 144$ $x = 24 \text{ cows}$	<p style="text-align: center;"><b>SLOPES</b></p> <p>COORDINATES: (3, 5) (5, 6)</p> <p>READ x FIRST (x, y)</p> <p><math>(x_1, y_1)(x_2, y_2)</math></p> <p>SLOPE FORMULA: <math>m = \frac{y_2 - y_1}{x_2 - x_1}</math></p> $m = \frac{6 - 5}{5 - 3} = \frac{1}{2} \quad m = \frac{1}{2}$ <p>Y-INTERCEPT FORMULA:</p> $y = mx + b$ $5 = \frac{1}{2} \cdot 3 + b$ $5 = \frac{3}{2} + b \rightarrow 5 - \frac{3}{2} = b \rightarrow \frac{10}{2} - \frac{3}{2} = b \quad b = \frac{7}{2}$ <p>LINEAR EQUATION: <math>y = \frac{1}{2}x + \frac{7}{2}</math></p> 																
<p style="text-align: center;"><b>EXPONENTS and SQUARE ROOTS</b></p> <table style="width: 100%; border: none;"> <tr> <td><math>2^2 = 4</math></td> <td><math>\sqrt{4} = 2</math></td> </tr> <tr> <td><math>3^2 = 9</math></td> <td><math>\sqrt{9} = 3</math></td> </tr> <tr> <td><math>4^2 = 16</math></td> <td><math>\sqrt{16} = 4</math></td> </tr> <tr> <td><math>5^2 = 25</math></td> <td><math>\sqrt{25} = 5</math></td> </tr> <tr> <td><math>6^2 = 36</math></td> <td><math>\sqrt{36} = 6</math></td> </tr> <tr> <td><math>7^2 = 49</math></td> <td><math>\sqrt{49} = 7</math></td> </tr> <tr> <td><math>8^2 = 64</math></td> <td><math>\sqrt{64} = 8</math></td> </tr> <tr> <td><math>9^2 = 81</math></td> <td><math>\sqrt{81} = 9</math></td> </tr> </table>	$2^2 = 4$	$\sqrt{4} = 2$	$3^2 = 9$	$\sqrt{9} = 3$	$4^2 = 16$	$\sqrt{16} = 4$	$5^2 = 25$	$\sqrt{25} = 5$	$6^2 = 36$	$\sqrt{36} = 6$	$7^2 = 49$	$\sqrt{49} = 7$	$8^2 = 64$	$\sqrt{64} = 8$	$9^2 = 81$	$\sqrt{81} = 9$	<p style="text-align: center;"><b>ADD/MULTIPLY EXPONENTS</b></p> $x^3 + x^3 = 2x^3$ $x^3 \cdot x^3 = x^6$	
$2^2 = 4$	$\sqrt{4} = 2$																	
$3^2 = 9$	$\sqrt{9} = 3$																	
$4^2 = 16$	$\sqrt{16} = 4$																	
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$7^2 = 49$	$\sqrt{49} = 7$																	
$8^2 = 64$	$\sqrt{64} = 8$																	
$9^2 = 81$	$\sqrt{81} = 9$																	

## Volume IV

<p style="text-align: center;"><b>AREA OF A SQUARE or RECTANGLE</b></p> <p style="text-align: center;">Area = base x height</p>  <p><math>7\text{cm} \times 3\text{cm} = 21\text{cm}^2</math></p> <p>Area = <math>21\text{cm}^2</math></p>	<p style="text-align: center;"><b>3 SPECIAL TRIANGLES</b></p> <p style="text-align: center;"><b>RIGHT TRIANGLE</b></p>  <p style="text-align: right;">Hypotenuse</p> <p>90° Angle</p> <p>Pythagorean Theorem: <math>a^2 + b^2 = c^2</math></p>	<p style="text-align: center;"><b>METRIC UNITS</b></p> <p style="text-align: center;"><b>DISTANCE/LENGTH</b></p> <p>KILOMETER = 1000 METERS (SHORT DRIVE)</p> <p>METER = 1 METER (HEIGHT OF 6 YEAR OLD)</p> <p>DECIMETER = 1/10 METER (HEIGHT OF A COFFEE CUP)</p> <p>CENTIMETER = 1/100 METER (LENGTH OF A RAISIN)</p> <p>MILLIMETER = 1/1000 METER (THIN AS A COIN)</p> <p style="text-align: center;"><b>WEIGHT/MASS</b></p> <p>KILOGRAM = 1000 GRAMS (HEAVY AS 3 CANS OF POP)</p> <p>GRAM = 1 GRAM (HEAVY AS A PAPERCLIP)</p> <p>MILLIGRAM = 1/1000 GRAM (WEIGHT OF A FEATHER)</p>
<p style="text-align: center;"><b>AREA OF A CIRCLE</b></p> <p style="text-align: center;">(A PIE ARE SQUARED)</p> <p style="text-align: center;">Area = pi x radius squared</p> <p style="text-align: right;">Radius = 6 mm</p> <p><math>a = \pi r^2</math></p> <p><math>a = 3.14 \times 6\text{mm}^2</math></p> <p>area = <math>113.04\text{mm}^2</math></p> 	<p style="text-align: center;"><b>ISOSCELES TRIANGLE</b></p> <p style="text-align: center;">2 Equal Sides</p>  <p style="text-align: center;">2 EQUAL ANGLES</p>	<p style="text-align: center;"><b>VOLUME/LIQUIDS</b></p> <p>KILOLITER = 1000 LITERS (BATHTUB FULL OF WATER)</p> <p>LITER = 1 LITER (SMALL BOTTLE OF POP)</p>
<p style="text-align: center;"><b>CIRCUMFERENCE OF A CIRCLE</b></p> <p style="text-align: center;">(SEEDY PIE)</p> <p style="text-align: center;">circumference = diameter x pi</p> <p style="text-align: right;">Diameter = 1 km</p> <p><math>c = d\pi</math></p> <p><math>c = 3.14\text{ km}</math></p> 	<p style="text-align: center;"><b>EQUILATERAL TRIANGLE</b></p> <p style="text-align: center;">3 EQUAL SIDES</p>  <p style="text-align: center;">3 EQUAL ANGLES</p> <p style="text-align: center;">60°</p>	