Angeles City Science High School
Mathematics 9

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Content:

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- What's In: What Am I?
- What's More: Complete Me!
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Math q2w1

What I know: Translate

1. $x + 2 = 15$
2. $y - 4 = 12$
3. $2m = 42$
4. $3c = \frac{1}{3}c$
5. $\frac{1}{2}k - 14 = 25$
6. $\sqrt{x} + 7 = 18$
7. $t^2 - 10 + h$
8. $3(6h - 3) = 30$
9. $2(v + w) > 3v$
10. $\frac{x}{s^2} = s + 2$

What's In: What Am I?

1. $V = khr^2$
2. S varies directly as t and inversely as M.
3. $I = kd$
4. $P = \frac{k}{g}$
5. L varies directly as m.
6. $C = kw$
7. T varies inversely as the square of w.
8. $A = \frac{kd}{t^2}$
9. $A = kbh$
10. M varies directly as n.

What's More: Complete Me!

1. Type: Direct Variation

$y = kx$

$2 = k(1)$

$2 = k$ or $k = 2$

$y = kx$

ME: $y = 2x$

VS: y varies directly as x

2. Type: Inverse Variation

$y = \frac{k}{x}$

$\frac{8}{1} = \frac{k}{9}$

$72 = k$ or $k = 72$

ME: $y = \frac{72}{x}$

VS: y is inversely proportional to x

3. Type: Inverse Variation

$y = \frac{k}{x}$

$\frac{6}{1} = \frac{k}{6}$

$36 = k$ or $k = 36$

ME: $y = \frac{36}{x}$

VS: y is inversely proportional to x

4. Type: Direct Variation

$y = kx$

$10 = k(2)$

$\frac{10}{2} = \frac{2k}{2}$

$k = 5$

ME: $y = 5x$

VS: y varies directly as x

c. Type: Direct Variation

$y = kx$

$9 = k(3)$

$\frac{9}{3} = \frac{3k}{3}$

$3 = k$ or $k = 3$

ME: $y = 3x$

VS: y varies directly as x

What Can I Do: Test Yourself!

1. Inverse Variation
2. Direct Variation
3.

Given graph	Variation Statement	k	SE	ME
Graph A	The temperature T varies inversely as the depth d.	14000	$T=\frac{k}{d}$	$T=\frac{14000}{d}$
Graph B	The price P varies directly as the mass m.	1.15	$P=km$	$P=1.15m$

Solution:

Graph A

$y=\frac{k}{x}$

$\frac{56}{1}=\frac{k}{250}$

$14000=k$ or $k=14000$

Graph B

$y=kx$

$1.15=k(1)$

$1.15=k$ or $k=1.15$