

Name : _____

Missing Values

L2S1

1) The variable u varies jointly with v and w . The value of u is -6.5 when $v = 0.2$ and $w = -2$.

a) Write an equation that relates u , v and w . _____

b) Find the value of u when $v = 3$ and $w = 7$. _____

2) The variable p varies directly with q and inversely with r . The value of p is 24 when $r = 5$ and $q = 20$.

a) Write an equation that relates p , q and r . _____

b) Find the value of p when $q = 10$ and $r = 4$. _____

3) The variable h varies directly with m and inversely with n . The value of h is 128 when $m = \frac{2}{3}$ and $n = \frac{1}{8}$.

a) Write an equation that relates h , m and n . _____

b) Find the value of h when $m = 5$ and $n = 2$. _____

4) The variable g varies directly with a and inversely with b . The value of g is 10 when $a = 2$ and $b = 4$.

a) Write an equation that relates g , a and b . _____

b) Find the value of g when $a = 3$ and $b = 6$. _____

5) The variable y varies directly with x . The value of y is 32 when $x = 8$.

a) Write an equation that relates x and y . _____

b) Find the value of x when $y = 40$. _____

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Missing Values

L2S1

1) The variable u varies jointly with v and w . The value of u is -6.5 when $v = 0.2$ and $w = -2$.

a) Write an equation that relates u , v and w .

$$\underline{u = 16.25vw}$$

b) Find the value of u when $v = 3$ and $w = 7$.

$$\underline{u = 341.25}$$

2) The variable p varies directly with q and inversely with r . The value of p is 24 when $r = 5$ and $q = 20$.

a) Write an equation that relates p , q and r .

$$\underline{p = \frac{6q}{r}}$$

b) Find the value of p when $q = 10$ and $r = 4$.

$$\underline{p = 18}$$

3) The variable h varies directly with m and inversely with n . The value of h is 128 when $m = \frac{2}{3}$ and $n = \frac{1}{8}$.

a) Write an equation that relates h , m and n .

$$\underline{h = \frac{36m^2}{n}}$$

b) Find the value of n when $m = 2$ and $h = 5$.

$$\underline{n = 5}$$

4) The variable g varies directly with h and inversely with c . The value of g is 9 when $h = 5$ and $c = -2$.

a) Write an equation that relates g , h and c .

$$\underline{g = 9hc}$$

b) Find the value of h when $c = -3$ and $g = 9$.

$$\underline{h = -3}$$

5) The variable y varies directly with x . The value of y is 32 when $x = 8$.

a) Write an equation that relates x and y .

$$\underline{y = 4x}$$

b) Find the value of x when $y = 40$.

$$\underline{x = 10}$$

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