

Name : _____

Missing Values

L2S4

1) The variable p varies jointly with q and r . The value of p is 792 when $q = 12$ and $r = 6$.

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

b) Find the value of q when $p = 88$ and $r = 2$. _____

2) The variable u varies directly with \sqrt{v} and inversely with w . The value of u is $\frac{1}{4}$ when $\sqrt{v} = 3$ and $w = \frac{4}{5}$.

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

b) Find the value of w when $u = \frac{1}{2}$ and $\sqrt{v} = 4$. _____

3) The variable m varies directly with n and inversely with p . The value of m is 12 when $n = 3$ and $p = 4$.

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

b) Find the value of n when $m = 18$ and $p = 6$. _____

4) The variable z varies directly with x and inversely with y . The value of z is 15 when $x = 3$ and $y = 2$.

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

b) Find the value of x when $z = 20$ and $y = 4$. _____

5) The variable g varies directly with h and inversely with d . The value of g is 35 when $d = 3$ and $h = 21$.

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

b) Find the value of d when $g = 15$ and $h = 27$. _____

PREVIEW

Gain complete access to the largest collection of worksheets in all subjects!

Members, please log in to download this worksheet.

Not a member? Please sign up to gain complete access.

www.mathworksheets4kids.com

Missing Values

L2S4

1) The variable p varies jointly with q and r . The value of p is 792 when $q = 12$ and $r = 6$.

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

$$\underline{p = 11qr}$$

b) Find the value of q when $p = 88$ and $r = 2$.

$$\underline{q = 4}$$

2) The variable u varies directly with \sqrt{v} and inversely with w . The value of u is $\frac{1}{4}$ when $\sqrt{v} = 3$ and $w = \frac{4}{5}$.

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

$$\underline{u = \frac{\sqrt{v}}{15w}}$$

b) Find the value of w when $u = \frac{1}{4}$ and $v = 9$.

$$\underline{w = \frac{1}{45}}$$

3) The variable m varies directly with n and inversely with n .

a) Write an equation that relates m and n .

$$\underline{m = \frac{56}{n}}$$

b) Find the value of n when $m = 8$.

$$\underline{n = 7}$$

4) The variable z varies directly with x and inversely with y . The value of z is 7 when $x = 1$ and $y = 9$.

a) Write an equation that relates z , x and y .

$$\underline{z = 7xy}$$

b) Find the value of z when $x = 10$ and $y = 14$.

$$\underline{z = 140}$$

5) The variable g varies directly with h and inversely with d . The value of g is 35 when $d = 3$ and $h = 21$.

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

$$\underline{g = \frac{5h}{d}}$$

b) Find the value of d when $g = 15$ and $h = 27$.

$$\underline{d = 9}$$

PREVIEW

Gain complete access to the largest collection of worksheets in all subjects!

Members, please log in to download this worksheet.

Not a member? Please sign up to gain complete access.

www.mathworksheets4kids.com