

Name : \_\_\_\_\_

## Missing Values

L1S1

1) The variable  $y$  varies directly with  $x$ . The value of  $y$  is 24 when  $x = 8$ .

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

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b) Find the value of  $y$  when  $x = 5$ .

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2) The variable  $m$  varies inversely with  $n$ . The value of  $m$  is 2 when  $n = \frac{1}{4}$ .

a) Write an equation that relates  $m$  and  $n$ .

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

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3) The variable  $p$  varies directly with  $q$ . The value of  $p$  is  $-2.4$  when  $q = -3.2$ .

a) Write an equation that relates  $p$  and  $q$ .

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b) Find the value of  $q$  when  $p = 4.8$ .

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4) The variable  $g$  varies inversely with  $f$ . The value of  $g$  is 3 when  $f = 6$ .

a) Write an equation that relates  $f$  and  $g$ .

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b) Find the value of  $g$  when  $f = \frac{6}{7}$ .

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5) The variable  $t$  varies directly with  $s$ . The value of  $t$  is 15 when  $s = 3$ .

a) Write an equation that relates  $s$  and  $t$ .

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b) Find the value of  $s$  when  $t = 25$ .

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Name : \_\_\_\_\_

## Answer key

# Missing Values

L1S1

1) The variable  $y$  varies directly with  $x$ . The value of  $y$  is 24 when  $x = 8$ .

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

$$y = 3x$$

b) Find the value of  $y$  when  $x = 5$ .

$$y = 15$$

2) The variable  $m$  varies inversely with  $n$ . The value of  $m$  is 2 when  $n = \frac{1}{4}$ .

a) Write an equation that relates  $m$  and  $n$ .

$$m = \frac{1}{2n}$$

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

$$n = \frac{1}{4}$$

3) The variable  $p$  varies directly with  $q$ . The value of  $p$  is  $-2.4$  when  $q = -3.2$ .

a) Write an equation that relates  $p$  and  $q$ .

$$p = 0.75q$$

b) Find the value of  $q$  when  $p = 4.8$ .

$$q = 6.4$$

4) The variable  $g$  varies inversely with  $f$ . The value of  $g$  is 3 when  $f = 6$ .

a) Write an equation that relates  $f$  and  $g$ .

$$g = \frac{18}{f}$$

b) Find the value of  $g$  when  $f = \frac{6}{7}$ .

$$g = 21$$

5) The variable  $t$  varies directly with  $s$ . The value of  $t$  is 15 when  $s = 3$ .

a) Write an equation that relates  $s$  and  $t$ .

$$t = 5s$$

b) Find the value of  $s$  when  $t = 25$ .

$$s = 5$$