Foundation Worksheet

3:02 | Substitution

Name: _____ Class: _____

Examples

1 Find the value of $3m - 2n$ if $m = 7$ and $n = 3$.

$$3 \times 7 - 2 \times 3 = 21 - 6$$
$$= 15$$

2 If $x = -2$, $y = 6$ and $z = 4$, evaluate $\frac{x^2 + y^2}{z}$.

$$\frac{(-2)^2 + 6^2}{4} = \frac{4 + 36}{4}$$
$$= \frac{40}{4} = 10$$

Exercise

1 Find the value of:

a $2x + 3y$ if $x = 3$, $y = -5$

b $3x^2$ if $x = 4$

c $7p - 5q$ if $p = 4$, $q = 8$

d $m - 7n$ if $m = 2$, $n = -3$

e $\frac{x + y}{6}$ if $x = 23$, $y = -8$

f $\frac{7g}{5h}$ if $g = 8$, $h = 4$

g $a^2 + b^2$ if $a = 7$, $b = 12$

h $10k + 8j$ if $k = 1{\cdot}5$, $j = 2{\cdot}5$

i $\frac{m + 5}{n - 4}$ if $m = 7$, $n = 2$

j $\frac{3a + b}{a - b}$ if $a = 8$, $b = -2$

2 If $a = 4$, $b = 5$ and $c = -2$, find the value of:

a $a^2 + bc$

b $a + b + c$

c $a - b - c$

d $4b + 7c$

e $13 - 2a - b$

f abc

g $a^2 + c^2$

h ab^2

i $3a - 2c + 4b$

j $\frac{a + b}{c}$

k $\frac{b}{a + c}$

l $\frac{a - b}{b - c}$

Fun Spot 3:02 | What did one plate say to the other plate?

Match the answers and the letters below.

If $m = 12$ and $n = 6$, find the value of:

C $m + n$

E $\frac{m}{n}$

H $\frac{1}{3}mn$

I $2m - 3n$

L $m + n^2$

M $\frac{2m}{4n}$

N $2n^2$

O $m - 2n$

S $\frac{m + n}{m - n}$

U $4m - 3n$

48	30	72	18	24	6	3	0	72	1	2

© Pearson Education Australia 2004.
This page may be photocopied for classroom use.

3:02 Substitution

1	a -9	b 48	c -12	d 23	e 2·5	f 2·8	g 193	h 35
	i -6	j 2·2						
2	a 6	b 7	c 1	d 6	e 0	f -40	g 20	h 100
	i 36	j $-4{\cdot}5$	k 2·5	l $-\frac{1}{7}$				