

8:07 | Formulae

Name: _____

Class: _____

Examples

1 Find the value of:

a $6k$ if $k = -7$
 $6k = 6 \times -7$
 $= -42$

b $4x - 5y$ if $x = 5, y = 2$
 $4x - 5y = 4 \times 5 - 5 \times 2$
 $= 10$

2 If $a = 4, b = -3$ and $c = 6$, find the value of each expression.

a $abc = 4 \times -3 \times 6$
 $= -72$

b $a^2 - c^2 = 4^2 - 6^2$
 $= -20$

3 If $S = 4\pi r^2$, find S when $r = 14$. Answer to the nearest integer.

$$S = 4 \times \pi \times 14^2$$

$$\approx 2463$$

Exercise

1 Find the value of:

a $5m$ if $m = 7$

b $2a + 3b$ if $a = 3, b = 4$

c $10c$ if $c = -4$

d $7x - 2y$ if $x = 5, y = 8$

e a^2 if $a = -6$

f $h - 5$ if $h = -7$

g $\sqrt{p+6}$ if $p = 10$

h $3m + n$ if $m = 6, n = 5$

i xy if $x = 4, y = 7$

j $20 - 3c$ if $c = 9$

k $5(y - 10)$ if $y = 4$

l $3t^2$ if $t = 7$

2 If $x = 3, y = 5$ and $z = -2$, find the value of:

a xy

b $x^2 + z^2$

c xyz

d $(x+y)^2$

e $x - y - z$

f $y - 3z$

g $x + y + z$

h $2x^2$

i $2x + y$

j $(z+6)^3$

k $x(y+z)$

l $3x + 5y$

3 a Use $V = x^3$ to find V when $x = 1.2$.

b If $C = 2\pi r$, find C (to nearest integer) when $r = 5.8$.

c Use $C = \sqrt{a^2 + b^2}$ to find C when $a = 11, b = 60$.

Fun Spot 8:07 | How do monsters like their eggs?

Match the letters with the answers below.

If $m = 7$ and $n = 8$, evaluate:

D mn

E $5m + 2n$

F $m^2 + n$

If $x = 12$ and $y = 3$, evaluate:

I $x - y$

R $x + y$

T $2xy$

72	51	4	4	9	57	4	9	51	56



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1 a 35	b 18	c -40	d 19	e 36	f -12	g 4	h 23
i 28	j -7	k -30	l 147				
2 a 15	b 13	c -30	d 64	e 0	f 11	g 6	h 18
i 11	j 64	k 9	l 34				
3 a 1.728	b 36	c 61					