

Substitution and formulas 1c

name.....

1) If $p = -4$, $q = 5$ and $r = 10$ find the value of

a) $pq + r$

b) $\frac{r^2}{q}$

c) $\frac{5r + 4q}{p}$

d) $p^2 + q^2 + r^2$

2) The general term of a number pattern is given by $T_n = 2n - 5$

Find

a) the first 4 terms

b) the 10th term

c) the 50th term

3) Find the general term of the number pattern

4 , 7 , 10 , 13

$T_n =$

4) The formula for the area of a trapezium is

$A = \frac{1}{2} h(a + b)$

Find the area if $h = 6$ cm ,
 $a = 3$ cm and $b = 4$ cm.

5) Write an expression for

a) the sum of g and k^2

b) the product of $6y$ and a

c) the average of v , w , x , y ,
and z

d) half of $8k$

e) 3 times the sum of $5a$
and 8

6) Given $f(x) = 2x + 3$ and
 $g(x) = x^2 + 1$ find

a) $f(4)$

b) $g(5)$

c) $f(2)$

d) $g(a)$

e) $f(x) + g(x)$

7) Construct a formula for

a) the number of minutes
(M) in H hours
 $M =$

b) the average speed (S) of
a car travelling D km in H
hours.
 $S =$

8) Write an equation linking
 x and y

a)

x	0	1	2	3
y	2	7	12	17

$y =$

b)

x	0	1	2	3
y	3	4	5	6

$y =$