

Algebra 1

test 3d

name.....

1) For each pattern write down the next 2 numbers

a) 58 , 50 , 42 ,

b) -12 , -19 , -26 ,

c) 1 , 4 , 9 , 16 ,

d) 4 , 16 , 36 , 64

e) 10 , 13 , 18 , 25

f) 2 , -3 , -8 ,

2) Complete these tables

a) $y = x + x + x + x$

x	1	3	5	7
y				

b) $p = 2q^2 + 5$

q	1	2	3	4
p				

c) $m = 2n^2 + 3$

n	7	8	9	10
m				

d) $d = 7c + c$

c	1	2	3	4
d				

3) $x = 4$, $y = 5$ and $z = 11$.
Substitute and evaluate these expressions.

a) $3y + 8y$

=

=

b) $xz^2 - 3x$

=

=

c) $(xz)^2$

=

=

d) $2y^2 + xz$

=

=

e) $xy + z \div 2$

=

=

4) Find the equation which describes the number pattern

a)

x	1	2	3	4
y	13	10	7	4

y =

b)

x	1	2	3	4
y	5	8	13	20

y =

c)

x	2	7	9	3
y	10	40	52	16

y =

5) Evaluate the pronumeral

a) $a + 9 = 14$

a =

b) $b - 12 = 20$

b =

c) $2c = 17$

c =

d) $d \div 5 = 11$

d =

e) $5e + 4 = 19$

e =

f) $f^2 + 5 = 41$

f =

g) $5g - 7 = 43$

g =

h) $5h + 4h = 72$

h =

i) $h^2 + 3h = 40$

h =

j) $50 - 7j = 39$

j =

k) $23 + k^2 = 59$

k =