Algebra 1

test 3a

name.....

1) For each pattern write down the next 2 numbers

a) 25 , 20 , 15 ,

b) -15 , -21 , -27 ,

c) 1 , 4 , 9 , 16 ,

d) 2 , 8 , 18 , 32

e) 2 , 5 , 10 , 17

f) 5 , 1 , -3 , -7 ,

2) Complete these tables

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

x	1	2	3	4
y				

b) $p = 3q^2 + 5$

q	1	2	3	4
p				

c) $m = 2n^2 + 4$

n	7	8	9	10
m				

d) $d = 5c + 2c$

c	1	2	3	4
d				

3) $x = 2$, $y = 4$ and $z = 6$. Substitute and evaluate these expressions.

a) $3y + 7y$

=

=

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	10	8	6	4

y =

b)

x	1	2	3	4
y	3	6	11	18

y =

c)

x	2	7	9	3
y	11	36	46	16

y =

5) Evaluate the pronumeral

a) $a + 8 = 17$

a =

b) $b - 12 = 16$

b =

c) $2c = 7$

c =

d) $d \div 7 = 12$

d =

e) $5e + 7 = 47$

e =

f) $f^2 - 1 = 80$

f =

g) $11g - 9 = 24$

g =

h) $4h + 3h = 42$

h =

i) $h^2 + h = 30$

h =

j) $30 - 4j = 18$

j =

k) $100 - k^2 = 64$

k =