

# Algebra 1

1) For each pattern write down the next 2 numbers

a) 59 , 48 , 37 ,

b) -11 , -17 , -23 ,

c) 1 , 4 , 9 , 16 ,

d) 3 , 12 , 27 , 48

e) 6 , 9 , 14 , 21

f) 5 , -3 , -11 ,

2) Complete these tables

a)  $y = x + x + x$

x	1	2	3	4
y				

b)  $p = 3q^2 + 4$

q	1	2	3	4
p				

c)  $m = 2n^2 + 7$

n	7	8	9	10
m				

d)  $d = 7c + 4c$

c	1	2	3	4
d				

test 3c

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3)  $x = 4$  ,  $y = 5$  and  $z = 10$  .  
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	14	12	10	8

y =

b)

x	1	2	3	4
y	0	3	8	15

y =

c)

x	2	7	9	3
y	10	45	59	17

y =

5) Evaluate the prounumerals

a)  $a + 9 = 17$

a =

b)  $b - 12 = 16$

b =

c)  $2c = 21$

c =

d)  $d \div 9 = 11$

d =

e)  $6e + 4 = 44$

e =

f)  $f^2 + 3 = 19$

f =

g)  $8g - 9 = 87$

g =

h)  $5h + h = 60$

h =

i)  $h^2 + h = 110$

h =

j)  $55 - 4j = 39$

j =

k)  $64 + k^2 = 208$

k =