Algebra and the Number Plane (3a) name .....

1) If a = 8 , b = -4 and c = 2 find

a) $c^2 - 2a$

b) $c(a^2 + b^2)$

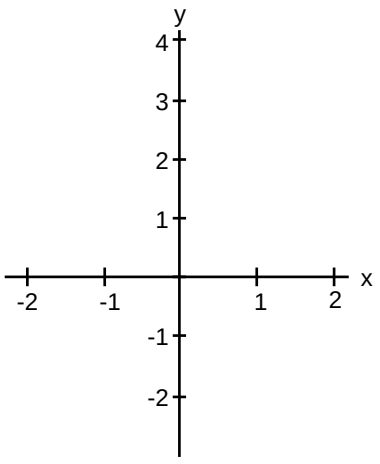
c) $(a + bc)^2$

d) $b^2 - (3c - b)$

2) Use the equation to complete the table and then plot the points

y = 1 - x

x	-1	0	1	2
v				



3) Simplify

a) -4a + 8b - 3a - 2b

=

b) 7k - 7h + 6k

=

c) 5xy + 6g - 4xy - 9g

=

d) $p^4 \times p$ =

e) $7y^3 \times 7y^6$ =

f) $4k^5 \times 3k$ =

g) $6a^5 \times a^5$ =

h) $p^8 \div p^2$ =

i) $y^4 \div y$ =

j) $12a^5 \div 2a^4$ =

k) $(y^3)^5$ =

l) $(9y^5)^2$ =

4) Expand

a) -4(y - 7) =

b) 4(3a - 5) =

c) $y(y^2 + 5)$ =

d) -7a(y + 5a) =

5) Expand and simplify

a) 5(y + 4) - 3(y - 5)

=

=

b) 6(h - 9) + 3(5h - 1)

=

=

6) Factorise

a) 7a - 35 =

b) 24f + 16 =

c) $k^2 + 6k$ =

7) Solve

a) 2a + 8 = 13

c) 8c - 25 = -9

d) (d - 3) ÷ 7 = -6

e) -30 ÷ e - 1 = -11

f) 5f + 20 = 5

Parent's signature and comment