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

1) If a = 5 , b = -3 and c = 10 find

a) c^2 - 2a

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

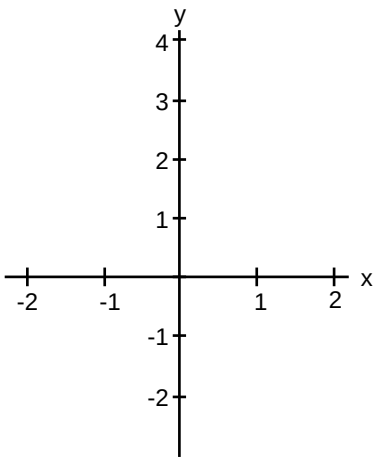
c) $(a + bc)^2$

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

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

y = 2x - 1

x	-1	0	1	2
v				



3) Simplify

a) -4a + 6b - 7a - 2b

=

b) 3k - 7h + 7k

=

c) 15xy + 2g - 6xy - 5g

=

d) $p^6 \times p$ =

e) $5y^3 \times 7y^3$ =

f) $2k^7 \times 3k$ =

g) $3a^5 \times a^5$ =

h) $p^8 \div p^5$ =

i) $y^6 \div y$ =

j) $8a^8 \div 2a^4$ =

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

l) $(5y^6)^2$ =

4) Expand

a) -4(y - 5) =

b) 4(2a - 8) =

c) $y(y^2 + 9)$ =

d) -3a(p + 5a) =

5) Expand and simplify

a) 7(y + 6) - 3(y - 8)

=

=

b) 4(h - 9) - 3(7h - 1)

=

=

6) Factorise

a) 10a - 35 =

b) 12f + 18 =

c) $k^2 + 7k$ =

7) Solve

a) 2a + 5 = 22

c) 4c - 11 = -3

d) (d - 3) ÷ 4 = -6

e) -50 ÷ e - 1 = -11

f) 3f + 20 = 11

Parent's signature and comment