

Algebra and the Number Plane (3c) name

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

a) $c^2 - 2a$

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

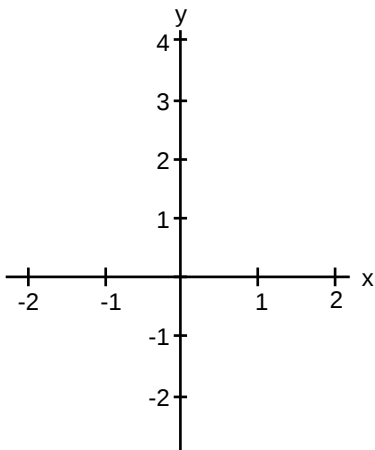
c) $(a + bc)^2$

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

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

$$y = 3x - 2$$

x	-1	0	1	2
y				



3) Simplify

a) $-5a + 8b - 7a + 7b$

=

b) $6k + 7h - 9k$

=

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

=

d) $p^8 \times p =$

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

f) $4k^7 \times 3k =$

g) $2a^5 \times a^2 =$

h) $p^5 \div p^2 =$

i) $y^3 \div y =$

j) $9a^8 \div 3a^4 =$

k) $(y^2)^5 =$

l) $(6y^3)^2 =$

4) Expand

a) $-5(y - 3) =$

b) $4(7a - 8) =$

c) $y(y^3 + 9) =$

d) $-5a(p + 6a) =$

5) Expand and simplify

a) $7(y + 7) - 5(y - 8)$

=

=

b) $3(h - 9) - 3(4h - 6)$

=

=

6) Factorise

a) $12a - 30 =$

b) $9f + 18 =$

c) $k^2 + 8k =$

7) Solve

a) $2a + 6 = 41$

c) $5c - 40 = -5$

d) $(d - 8) \div 2 = -6$

e) $-45 \div e - 1 = -10$

f) $8f + 40 = 8$

Parent's signature and comment