

ALGEBRA TEST

name.....

1) Simplify

a) $5y + 7x - 2y + x$

=

b) $5a^2 + 2a + 3a - a^2$

=

c) $-4p + 2y - 3p + y$

=

d) $3y - 2y + 7h + 8y$

=

e) $-4p - 2q + p - 7q$

=

2)a) $y \times y \times y \times y =$

b) $a^2 \times a^3 =$

c) $p^6 \div p^2 =$

d) $(a^3)^2 =$

e) $2y^4 \times 3y^2 =$

f) $20a^8 \div 2a^4 =$

g) $(5ay^4)^2 =$

h) $(-3p^2)^3 =$

i) $-3a^2b \times 2ab =$

j) $40m^3n \div 8mn =$

k) $\frac{27y^3}{9y} =$

4) Factorise

a) $5a - 15 =$

b) $3p^2 + 6p =$

c) $12kt + 4k =$

d) $4a^2b - 6ab =$

e) $21y^2 + 28yz =$

5) Expand and simplify

a) $5(3y + 2) + 7(y - 4)$

=

=

b) $4p(2p + 6) - 3(p^2 - 1)$

=

=

c) $6(2y + 11) - 4(5y - 2)$

=

=

6) If $g(x) = 8x^2 - 1$

and $K(x) = x^2 + x$

Find

a) $g(3)$

b) $K(7)$

c) $g(1) + K(2)$

3) Expand

a) $3(2a + 7) =$

b) $-4(3y - 6) =$

c) $y(3y - 7) =$

d) $5p(3p + 8) =$

e) $4a(3y - 2) =$

7) Simplify

a) $\frac{x}{4} + \frac{3x}{10}$

b) $\frac{3y^2}{2} \div \frac{8y}{6}$

8) Complete this table using the rule

$y = 2x - 1$

x	y
-1	
0	
1	
2	

Plot these points

