Revision for Algebra

Name:

<u>SUBSTITUTING VALUES:</u>

Calculate if $y = 4$

1. y^2

2. $3y$

3. $6y^2 + 2y$

If $b = 6$ and $x = 3$ calculate $3bx$

<u>MULTIPLYING TERMS:</u>

Simplify:

1. $4c \times 2a \times b$

2. $2y \times 3y \times 4x^2$

3. $y \times y^4 \times 5y$

<u>EXPAND:</u>

1. $2(x + 4)$

2. $5(y + 2)$

3. $-6(8 - y)$

4. $2(x + y + 5)$

FACTORISE:

1. $6y + 18$

2. $5x - 10$

3. $x^2 - 2x$

4. $27x + 54$

SIMPLIFY:

1. $2cd + 8 + 5cd$

2. $8xy - 8x + 2xy$

3. $3y^2 \times -2y^3$

4. $-2y \times \frac{1}{2}y^2$

SIMPLIFY:

1. $\frac{16t}{4w}$

2. $\frac{20x^2y^3}{4x^4y}$

3. $\frac{16c^2d^3}{2d}$

SIMPLIFY:

1. $m^2 \times m^3 \times m^4$

2. $y^2 \times y^3 \times y$

3. $\frac{12m^3}{3m}$

4. $\frac{w^3y^7}{wy^4}$

EXPAND:

1. $2c(c + 3d)$

2. $-4y(x - y)$

3. $3w(2w + 4) + 5w$

4. $-y(7 - y)$

5. $-y(7 - y)$

FACTORISE:

1. $2x^2 + 6x$

2. $9cd + 12c^2dx$

3. $5x^3y^4z + 10xy^2z^2$

4. $xy - 2xy^2$

SOLVE EQUATIONS:

1. $x - 1 = 8$

2. $2x - 4 = 8$

3. $5c - 9 = 11$

4. $\frac{c}{4} - 8 = 0$

5. $6(y - 2) = 60$

6. $6c - 4 = 3c + 2$

7. $5x + 2 = 0$

FACTORISE QUADRATICS:

1. $x^2 + 5x + 6$

2. $x^2 - 9$

3. $x^2 - x - 12$

4. $x^2 + 15x + 50$

EXPAND AND SIMPLIFY:

1. $(x + 3)(x + 3)$

2. $(x - 4)(x - 2)$

3. $(2x + 1)(3x - 2)$

4. $(2 - x)(x + 4)$