

EQUATIONS AND EXPRESSIONS

Stage 8

Rugger has completed his Year 10 Algebra homework.
Mark his homework for him and correct any mistakes he makes.

1. Simplify

a) $4x - 5 - 6x + 4 = -2x + 1$

b) $(12 \times y^2) \div 4x = 3yz$

c) $y^0 = 0$

d) $(4 \times 2y)^2 = 4 \times 4y^2$

2. Expand

a) $4x(x - 5) = 4x^2 - 20x$

b) $3(4 - x) = 12 + 3x$

c) $-(x + 2) = -x - 2$

3. Factorise

a) $4x + 6y + 10z = 2(2x + 3y + 5z)$

b) $x^2 + x^3 = x(2x + 3x)$

4. Solve

a) $-4x = 16$

$x = -4$

b) $5x - 6 = 19$

$x = 5$

c) $7x - 5 = 4x - 2$

$x = 14$

d) $4(x + 2) - 3 = 11$

$4x + 8 - 3 = 11$

$4x = 5 = 1$

$4x = -4$

$x = -1$

