

Simplify these expressions:

1  $6xy - 9yx$

2  $6x - 4y + x - 5y$

3  $3p + 9q + 2p - 4q$

4  $3xy + 5x + 2xy - 8x$

5  $5x^2 - 9x - 6x + 2x^2$

6  $9 - 4x - 2 + 8x$

7  $4xy - 3yx + 2xy - 10yx$

8  $x^2 - 6 - 4x^2 + 15$

9  $7y^2 - 2y^2 + 3y - 5y - 11y^2$

11. Expand and simplify

a  $10 + 2(x + 3)$

b  $15 - 3(x - 4)$

c  $20 - 2(3x - 4y + 6)$

d  $9 - 5(y + 2)$

e  $8 - 7(x - 2)$

f  $17x - 3(x + 5)$

g  $10y - (2y - x)$

h  $5x - 2x(x - 3)$

12. Simplify these

a)  $\frac{21x}{3}$

b)  $\frac{50}{5x}$

c)  $\frac{12x^2y}{4x}$

d)  $\frac{18xyz}{12x^2y}$

e)  $\frac{x}{3} \times \frac{y}{2}$

f)  $\frac{3x}{8} \times \frac{4}{y}$

g)  $\frac{xy}{12x} \times \frac{4x}{8y}$

h)  $6x \times \frac{4x}{3y}$