Make x the subject of the formulae

1) $2x + y = 5x - w$

2) $\frac{x+t}{r} = q$

3) $\frac{p}{x+q} = \frac{m}{x-q}$

Express in the form $(x+p)^2 + q$

1) $x^2 + 6x - 5$

2) $x^2 - 10x + 18$

3) $x^2 - 12x + 36$

Expand

1) $3(x+4)$

2) $2(3x-5)$

3) $4x(x^2 - 3x + 2y)$

Expand and simplify

1) $2(x+4) + 3(x+5)$

2) $5(x-7) - 2(x+4)$

3) $6(x+5) - 3(x-7)$

4) $3(x+2) - (x-4)$

Expand and simplify

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

2) $(x-2)(x-7)$

3) $(x-5)^2$

4) $(2x-4)(3x+5)$

Solve for x and y

$2x + 3y = 11$
$5x + 7y = 25$

Solve

1) $x^2 = 64$

2) $4x^2 = 100$

3) $2x^2 + 4 = 36$

4) $\frac{x^2-5}{2} = 58$

Solve

1) $\frac{x}{4} - 7 = -5$

2) $\frac{x+4}{6} = 3$

3) $\frac{3(x+4)}{5} = 6$

4) $\frac{2}{x+2} = \frac{3}{x-5}$

Solve

1) $3x - 5 = 29$

2) $2(x+7) = 29$

3) $5x + 6 = 2x - 36$

4) $7 - 3x = 7x - 15$

Factorise and solve

1) $x^2 - 8x + 15 = 0$

2) $x^2 - 5x - 14 = 0$

3) $x^2 - 144 = 0$

4) $4x^2 - 81 = 0$

Factorise

1) $2x^2 + 3x$

2) $5pq^2 - 7p^2q$

3) $x^2 + 8x + 6$

4) $x^2 + x - 12$

5) $x^2 - 25$

Expand and simplify

1) $(x+3)(x^2 + 2x + 4)$

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

3) $(x-2)(x-4)(x+5)$