1 Rearrange the formula to make t the subject.

$$y = \frac{2pt}{p-t}$$

2 Make s the subject of the formula

$$v^2 = u^2 + 2as$$

3 Simplify fully $\dfrac{x^2 - 8x + 15}{2x^2 - 7x - 15}$

4 Make b the subject of the formula $\quad a = \dfrac{2 - 7b}{b - 5}$

5 Show that the equation

$$\frac{5}{x+2} = \frac{4 - 3x}{x - 1}$$

can be rearranged to give $\quad 3x^2 + 7x - 13 = 0$

6 Make q the subject of the formula $\quad 5(q + p) = 4 + 8p$
Give your answer in its simplest form.

7 Solve the equation

$$\frac{x}{2x - 3} + \frac{4}{x + 1} = 1$$

8 Simplify fully $\dfrac{x^2 + x - 6}{x^2 - 7x + 10}$

9 Solve $\quad \dfrac{4}{x + 3} + \dfrac{3}{2x - 1} = 1$

10 Show that

$$\frac{(a + b)^2 + (a - b)^2}{2} = a^2 + b^2$$

11 Solve the equation

$$\frac{7}{x + 2} + \frac{1}{x - 1} = 4$$

12 Make q the subject of the formula

$$x = \frac{p - q}{pq}$$

13 Rearrange $\quad \dfrac{1}{u} + \dfrac{1}{v} = \dfrac{1}{f}$

to make u the subject of the formula.

(14) Simplify $\dfrac{x-3}{x^2-9}$

(15) Make h the subject of the formula $d = \sqrt{\dfrac{3h}{2}}$

(16) Rearrange the formula to make a the subject.

$$P = \frac{n^2 + a}{n + a}$$

(17) $\dfrac{x}{x+c} = \dfrac{p}{q}$

Make x the subject of the formula.

(18) Simplify fully $\dfrac{x^2 + 5x + 6}{x^2 + 2x}$

(19) Solve $\dfrac{3}{x} + \dfrac{3}{2x} = 2$

(20) Make p the subject of the formula

$4(p - 2q) = 3p + 2$

(21) Simplify fully $\dfrac{25 - x^2}{25 + 5x}$

(22) Make x the subject of

$5(x - 3) = y(4 - 3x)$

(23) Rearrange $a(q - c) = d$ to make q the subject.

(24) Make r the subject of the formula

$P = \pi r + 2r + 2a$

(25) Show that $25 - \dfrac{(x-8)^2}{4} = \dfrac{(2+x)(18-x)}{4}$

(26) Simplify fully

$$\dfrac{x^2 - 3x}{x^2 - 8x + 15}$$

$$t = \frac{yp}{2p+y}$$

$$s = \frac{v^2 - u^2}{2a}$$

$$\frac{x-3}{2x+3}$$

$$b = \frac{2+5a}{a+7}$$

$$5(x-1) = (4-3x)(x+2)$$
$$5x-5 = -3x^2 + 4x - 6x + 8$$

$$q = \frac{4+3p}{5}$$

$$x = +9 \quad \text{or} \quad x = +1$$

$$\frac{x+3}{x-5}$$

$$x = +4 \quad \text{or} \quad x = -1$$

$$\frac{\dfrac{a^2 + 2ab + b^2 + a^2 - 2ab + b^2}{2}}{\dfrac{2a^2 + 2b^2}{2}}$$

$$x = -\frac{1}{2} \quad \text{or} \quad x = +\frac{3}{2}$$

$$q = \frac{p}{px+1}$$

$$u = \frac{vf}{v-f}$$

$$\frac{1}{x+3}$$

$$h = \frac{(2d)^2}{3}$$

$$a = \frac{n^2 - Pn}{P-1} \quad \text{or} \quad a = \frac{Pn - n^2}{1-P}$$

$$x = \frac{pc}{q-p}$$

$$\frac{x+3}{x}$$

$$x = \frac{9}{4}$$

$$p = 8q + 2$$

$$\frac{5-x}{5}$$

$$x = \frac{4y+15}{5+3y}$$

$$q = \frac{d}{a} - c \quad \text{or} \quad q = \frac{d+ac}{a}$$

$$r = \frac{P-2a}{\pi+2}$$

$$\frac{100}{4} - \frac{x^2 - 16x + 64}{4}$$

$$\frac{36 - x^2 + 16x}{4}$$

$$\frac{x}{x-5}$$