

Solving Equations

$$(1) \frac{y}{3} + 4 = \frac{y}{2}$$

$$(2) \frac{2}{3}x + 3(x - 1) = 8$$

$$(3) 3 + 2x = 2\left(\frac{3}{2} + x\right)$$

$$(4) \frac{1}{x} = \frac{3}{x} + 1$$

$$(5) \frac{3}{5}x + 8 = -x + \frac{1}{5}(2 + 8x)$$

$$(6) \sqrt{x} = 2 - x$$

$$(7) \frac{2z-1}{z+2} = \frac{4}{5}$$

$$(8) y = 1 + \sqrt{2 - 2y}$$

$$(9) (x + 2)^2 = 4$$

$$(10) \frac{1}{x-1} + \frac{1}{x+2} = -\frac{8}{5}$$

(11) Solve for x :

$$\frac{a+x}{b-x} = c$$

(12) Solve for a :

$$\frac{a+x}{b-x} = c$$

(13) Solve for θ :

$$x\theta^2 + \theta - 2 = 0$$

(14) Solve for $\frac{dy}{dx}$:

$$3y^2 \frac{dy}{dx} + 2y + 2x \frac{dy}{dx} = 7$$