

Exercise 3.1

answers on p. 427

4. (a) Find x in terms of a , b , c and d in this equation: $ax - b = cx - d$.

(b) Solve $\frac{1}{3}x - \frac{4}{5} = \frac{2}{5}x - \frac{2}{3}$.

5. Express x in terms of a , b , c , d and e .

(a) $a(x - b) + c(x + d) = e$

(b) $b(a + x) + d(c - x) = ex$

6. Express x in terms of p , q , r and s .

(a) $p(x + q) + x + r = s$

(b) $q(x - p) - r(x + 2) = sx$

7. Express x in terms of a , b and c .

(a) $\frac{a}{x} = c + b$

(b) $\frac{b + c}{x} = a$

8. Express x in terms of a , b and c .

(a) $\frac{x}{2a} + \frac{x}{3b} = c$

(b) $\frac{x}{3a} - \frac{x}{2b} = 5c$

9. $ab + c = bd + e$

(a) Find b in terms of a , c , d and e .

(b) Find d in terms of a , b , c and e .

10. $ab - c = d + ae$

(a) Find a in terms of b , c , d and e .

(b) Find b in terms of a , c , d and e .

Exercise 3.1 (p. 53)

4. (a) $x = \frac{b-d}{a-c}$ (b) $x = -2$

5. (a) $x = \frac{ab - cd + e}{a + c}$

(b) $x = \frac{-ab - cd}{b - d - e}$ or $\frac{-(ab + cd)}{b - d - e}$ or $\frac{ab + cd}{d + e - b}$

6. (a) $x = \frac{s - pq - r}{p + 1}$

(b) $x = \frac{pq + 2r}{q - r - s}$

7. (a) $x = \frac{a}{c + b}$

(b) $x = \frac{b + c}{a}$

8. (a) $x = \frac{6abc}{2a + 3b}$

(b) $x = \frac{30abc}{2b - 3a}$

9. (a) $b = \frac{e - c}{a - d}$

(b) $d = \frac{ab + c - e}{b}$

10. (a) $a = \frac{d + c}{(b - e)}$

(b) $b = \frac{d + ae + c}{a}$