

Exercise 2015-9EF-00006(4)

(1) Solve the following equations simultaneously:

(a) $\frac{2x+5}{3} = 3$ and $\frac{x+y}{3} = \frac{y}{2}$

(b) $5a = 10 = a - 3b + 2$

(2) Solve the following equations:

(a) $2(m-2)^2 + (3+m)2 - (m-1)(m+2) - m^2 = 0$

(b) $\frac{2y-3}{2} + \frac{y+1}{3} - \frac{3y-1}{2} = 0$

(c) $x(2x+1)(x^2-100)\left(x+\frac{1}{4}\right) = 0$

(d) $2p^2 + 16p = -32$

(3) Determine the possible value(s) of x and y if:

$$(2x-4)(3y+9) = 0$$

(4) Make K the subject if $I = \frac{Krt}{100}$

(5) Sameul is four years older than Jack. In six years' time, the sum of their ages will be 34.
How old is Jack now?

(6) A certain number doubled then increased by 7 is equal to five times the same number decreased by 2. Find the number.