1) Solve by factoring

a) $x^2 + 8x + 12 = 0$

b) $h^2 + 9h + 18 = 0$

c) $m^2 + 3m = 0$

d) $w^2 - 18w + 56 = 0$

e) $x^2 - 2x = 0$

f) $c^2 - 17c + 30 = 0$

2) Solve

a) $3x^2 + 28x + 9 = 0$

b) $4k^2 + 19k + 15 = 0$

d) $16b^2 - 1 = 0$

f) $4x^2 - 12x + 9 = 0$

3) Solve each quadratic equation by factoring

a) $x^2 + 2x - 3 = 0$

b) $x^2 + 3x - 10 = 0$

c) $4x^2 - 36 = 0$

d) $6x^2 - 14x + 8 = 0$

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

f) $6x^2 + 19x + 10 = 0$

4) Solve by factoring

a) $-x^2 - 10x - 16 = 0$ **b)** $6d^2 + 15d = -9$

5) A rectangle has dimensions $x+10$ and $2x$-3. Determine the value of x that gives an area of 54 cm²

Answers

1) a) -2, -6 **b)** -3, -6 **c)** 0, -3 **d)** 14, 4 **e)** 0, 2 **f)** 15, 2

2) a) $\frac{-1}{3}$, -9 **b)** -1, $\frac{-15}{4}$ **d)** $\frac{1}{4}$, $\frac{-1}{4}$ **f)** $\frac{3}{2}$

3) a) -3, 1 **b)** -5, 2 **c)** -3, 3 **d)** $\frac{4}{3}$, 1 **e)** $\frac{1}{5}$, $\frac{1}{3}$ **f)** $-\frac{5}{2}$, $-\frac{2}{3}$

4) a) -8, -2 **b)** -1, $\frac{-3}{2}$

5) 3.5