

Workout

Question 1

(a) $x = 1, x = 3$

(b) $y = 4, y = 9$

(c) $m = -1, m = -6$

(d) $x = 3, x = -2$

(e) $t = -7, t = 3$

(f) $k = 10, k = -9$

(g) $w = -5, w = -11$

(h) $y = 8, y = 2$

(i) $x = -3, x = 9$

Question 2

(a) $x = -4, x = -2$

(b) $x = -4, x = -3$

(c) $y = -5, y = -2$

(d) $y = -4, y = 1$

(e) $x = -2, x = 4$

(f) $m = 3, m = 4$

(g) $y = 5$

(h) $y = -5, y = 9$

(i) $x = -7, x = 8$

(j) $y = -6, y = -4$

(k) $x = -6, x = -3$

(l) $x = -22, x = -1$

(m) $y = 2, y = 11$

(n) $x = -4, x = 3$

(o) $m = -3, m = 9$

(p) $x = 2, x = 9$

(q) $y = 6, y = 8$

(r) $x = 7, x = 8$

(s) $m = -7, m = 8$

(t) $y = -16, y = -6$

(u) $k = -4, k = 22$

(v) $x = 2, x = 36$

(w) $x = -17, x = 3$

(x) $y = -20, y = -12$

(y) $g = -4, g = 16$

(z) $y = -11$

Question 3

(a) $y = -5, y = 5$

(b) $x = -2, x = 2$

(c) $m = -9, m = 9$

Question 4

(a) $x = -3, x = 3$

(b) $y = -10, y = 10$

(c) $w = -1, w = 1$

(d) $k = -12, k = 12$

(e) $x = -8, x = 8$

(f) $c = -0.5, c = 0.5$

Question 5

(a) $x = -1$

(b) $y = -7, y = -1$

(c) $y = 3, y = 4$

(d) $y = -12, y = -1$

(e) $x = -2, x = 5$

(f) $x = 7$

(g) $x = 3$

(h) $x = -14, x = 15$

Question 6

(a) $x = 1, x = 5$

(b) $x = -5, x = 3$

(c) $x = -9, x = 5$

Apply

Question 1:

(a) $x^2 - 3x - 180 = 0$

(b) Alex is 15

Question 2: 180m

Question 3: height = 17cm, base = 10cm

Question 4: 15 and 12

Question 5: 36cm

Question 6:

(a) $x^2 + x^2 + (x^2 + 15x) + (x^2 + 15x) + (x^2 + 15x) + (x^2 + 15x)$

$$6x^2 + 60x = 3600$$

$$x^2 + 10x = 600$$

$$x^2 + 10x - 600 = 0$$

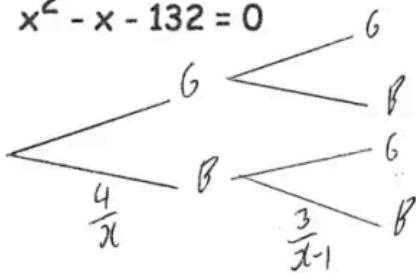
(b) $x = 20$

(c) 14000cm^3

Question 7: $x = 7$ or $x = 11$

Question 8:

(a) Prove $x^2 - x - 132 = 0$



$$\frac{4}{x} \times \frac{3}{x-1} = \frac{1}{11}$$

$$\frac{12}{x(x-1)} \times \frac{1}{11}$$

$$\frac{1}{11} \frac{132}{x} = x^2 - x$$

$$x^2 - x - 132 = 0 \quad (3)$$

(b) Find x , the number of apples in the crate.

$$(x + 11)(x - 12) = 0$$

$$x = -11$$

$$x = 12$$

✓

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