

Equations: Letters on Both Sides

Workout

Question 1:

(a) $x = 3$

(b) $x = 6$

(c) $x = 4$

(d) $x = 9$

(e) $x = 4$

(f) $x = 17$

(g) $x = 8$

(h) $x = 1$

(i) $x = 4$

(j) $x = 2$

(k) $x = 6$

(l) $x = 3$

(m) $x = 9$

(n) $x = 1$

(o) $x = 6$

(p) $x = 6$

(q) $x = 11$

(r) $x = 5$

Question 2:

(a) $x = 2.5$

(b) $x = 14.5$

(c) $x = 4.5$

(d) $x = 4.5$

(e) $x = 2.1$

(f) $x = \frac{2}{3}$

(g) $x = 7.2$

(h) $x = 4.875$

(i) $x = 1.75$

Question 3:

(a) $x = -4$

(b) $x = -7$

(c) $x = -6.5$

(d) $x = -5$

(e) $x = -3$

(f) $x = -3$

(g) $x = -12$

(h) $x = -4$

(i) $x = -8$

Question 4:

(a) $x = 6$

(b) $x = 5$

(c) $x = 7$

(d) $x = 9.5$

(e) $x = 11$

(f) $x = -6$

(g) $x = -3$

(h) $x = 19$

Apply

Question 1:

(a) The opposite sides of a rectangle have the same length

(b) $x = 7$

Question 2:

(a) In an isosceles triangle there are two sides of equal length

(b) $x = 3$

(c) $P = 69$

Question 3:

The x cancels out

Step 1: Expanding the brackets

$$8x+3=2(4x+1)$$

$$8x+3=8x+2$$

Step 2: Subtract $8x$ from both sides.

$$3=2$$

which is clearly impossible.

Question 4:

(a) $x=9$

(b) $y= 61$

Question 5:

(a) $8x + 42 = x$

(b) $x = -6$

Question 6:

(a) 5 should have been added to both sides, not subtracted

(b) $2x$ should have been added to both sides, not subtracted