Corbett maths

Solving Equations

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Examples

Workout

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Question 1: Solve the following equations

(a) $w + 5 = 7$ (b) $c + 2 = 10$ (c) $a - 1 = 6$ (d) $x - 4 = 5$

(e) $x + 4 = 13$ (f) $3w = 12$ (g) $2x = 18$ (h) $\frac{w}{2} = 6$

(i) $\frac{x}{4} = 7$ (j) $5y = 30$ (k) $x + 10 = 40$ (l) $2x = 34$

(m) $x - 9 = 7$ (n) $\frac{m}{6} = 8$ (o) $w - 15 = 35$ (p) $\frac{x}{10} = 5$

(q) $11y = 55$ (r) $2x = 11$ (s) $b + 6 = 4$ (t) $\frac{x}{3} = 1.5$

(u) $4y = 10$ (v) $10g = 37$ (w) $a - 7 = -3$ (x) $v + 2 = -6$

(y) $\frac{w}{4} = 2.7$ (z) $5y = 24$

Question 2 Solve the following equations

(a) $2x + 3 = 9$ (b) $3w - 1 = 14$ (c) $7y + 2 = 30$

(d) $5x + 20 = 35$ (e) $6c - 12 = 48$ (f) $8m - 4 = 20$

(g) $7w + 13 = 90$ (h) $12p - 18 = 30$ (i) $9w - 5 = 67$

(j) $10a + 40 = 100$ (k) $9x - 24 = 84$ (l) $7w + 1 = 1$

(m) $6x - 19 = 5$ (n) $3w + 4 = 43$ (o) $\frac{x}{3} + 1 = 5$

(p) $\frac{c}{2} - 4 = 6$ (q) $\frac{x}{10} + 3 = 9$ (r) $\frac{n}{9} - 8 = 1$

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(s) $\frac{x}{4} - 7 = 14$ (t) $\frac{c}{3} + 8 = 40$ (u) $\frac{x}{5} - 26 = 19$

Question 3: Solve the following equations

(a) $2m + 8 = 15$ (b) $10w - 3 = 45$ (c) $4x + 5 = 7$

(d) $5w + 11 = 19$ (e) $8x + 2 = 30$ (f) $4x + 11 = 3$

(g) $6w + 20 = 2$ (h) $2w - 9 = -6$ (i) $3c + 8 = -13$

(j) $\frac{x}{3} + 6 = 1$ (k) $\frac{w}{2} + 8 = 3$ (l) $\frac{m}{8} + 7 = -1$

(m) $\frac{1}{2}x + 3 = 15$ (n) $\frac{1}{4}m - 7 = 2$ (o) $\frac{1}{3}x - 2 = -6$

Question 4: Solve the following equations

(a) $\frac{x + 1}{2} = 9$ (b) $\frac{x - 3}{4} = 8$ (c) $\frac{m - 8}{5} = 3$

(d) $\frac{2x}{3} = 6$ (e) $\frac{3x}{5} = 30$ (f) $\frac{5x}{4} = 20$

(g) $\frac{2x}{7} + 2 = 12$ (h) $\frac{8x}{3} - 9 = 7$ (i) $\frac{3x}{10} - 4 = 8$

(j) $\frac{10m + 20}{15} = 6$ (k) $\frac{2x + 5}{3} = 7$ (l) $\frac{7x - 5}{10} = 10$

Question 5: Solve the following equations

(a) $16 - y = 5$ (b) $5 + x = 13$ (c) $10 - 3x = 1$

(d) $38 - 4m = 14$ (e) $9 + 7x = 51$ (f) $11 - 5x = 21$

(g) $18 - 3a = 6$ (h) $21 = 7 + 4f$ (i) $44 = 58 - 8g$

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Apply

Question 1: The equation $9x = 27$ has an answer of $x = 3$.
Write down five different equations with an answer of $x = 3$.

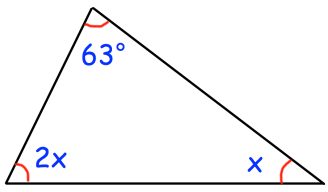
Question 2: Ronald is x years old.
His friend Colin is 3 years older than than Ronald.
Colin is 19 years old.
(a) Write down an equation for this information.
(b) Solve your equation to find how old Ronald is.

Question 3: Hannah is n years old.
Her aunt Emily is three times older than Hannah.
Emily is 48 years old.
(a) Write down an equation for this information.
(b) Solve your equation to find how old Ronald is.

Question 4: Sam thinks of a number, n.
He multiplies his number by 7 and then adds 3 to the result.
His final answer is 45.
(a) Write down an equation for this information.
(b) Solve your equation to find the number, n.

Question 5: A rectangular field has a perimeter of 150m.
The field is 15 metres longer than it is wide.
The width of the field is x metres.
(a) Write down an equation for this information.
(b) Solve your equation to find the width of the field
(c) Find the length of the field

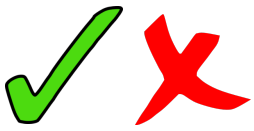
Question 6: Shown is a triangle.
The three angles add up to give 180°
(a) Write down an equation for this information
(b) Solve your equation to find x.



Question 7: The sum of each row is given.
Find a, b, c and d.

a	a	a	a	24
a	a	b	b	28
b	c	c	c	29
a	b	c	d	31

Answers



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