

Question ID fcc4a886

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Algebra	Linear equations in one variable	<div><div></div><div></div><div></div></div>

ID: fcc4a886

A factory makes **9**-inch, **7**-inch, and **4**-inch concrete screws. During a certain day, the number of **9**-inch concrete screws that the factory makes is **5** times the number ***n*** of **7**-inch concrete screws, and the number of **4**-inch concrete screws is **22**. During this day, the factory makes **100** concrete screws total. Which equation represents this situation?

- A. $9(5n) + 7n + 4(22) = 100$
- B. $9n + 7n + 4n = 100$
- C. $5n + 22 = 100$
- D. $6n + 22 = 100$

Question ID 83c21f13

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ID: 83c21f13

Each side of a **30**-sided polygon has one of three lengths. The number of sides with length **8 centimeters (cm)** is **5** times the number of sides ***n*** with length **3 cm**. There are **6** sides with length **4 cm**. Which equation must be true for the value of ***n***?

- A. $5n + 6 = 30$
- B. $6n + 6 = 30$
- C. $8n + 3n + 4n = 30$
- D. $8(5n) + 3n + 4(6) = 30$

Question ID 81fa9041

Assessment	Test	Domain	Skill	Difficulty
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ID: 81fa9041

$$-3x + 21px = 84$$

In the given equation, p is a constant. The equation has no solution. What is the value of p ?

- A. 0
- B. $\frac{1}{7}$
- C. $\frac{4}{3}$
- D. 4

Question ID a5eac396

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ID: a5eac396

$$2(kx - n) = -\frac{28}{15}x - \frac{36}{19}$$

In the given equation, k and n are constants and $n > 1$. The equation has no solution. What is the value of k ?

Question ID e7af391e

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ID: e7af391e

$$3(kx + 13) = \frac{48}{17}x + 36$$

In the given equation, k is a constant. The equation has no solution. What is the value of k ?

Question ID 5f546ecc

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ID: 5f546ecc

If $5(x + 4) = 4(x + 4) + 29$, what is the value of $x + 4$?

- A. -4
- B. 25
- C. 29
- D. 33

Question ID 8e338d65

Assessment	Test	Domain	Skill	Difficulty
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ID: 8e338d65

$5(t + 3) - 7(t + 3) = 38$

What value of t is the solution to the given equation?

Question ID 593de6f7

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ID: 593de6f7

How many solutions does the equation $10(15x - 9) = -15(6 - 10x)$ have?

- A. Exactly one
- B. Exactly two
- C. Infinitely many
- D. Zero

Question ID 86e98b7d

Assessment	Test	Domain	Skill	Difficulty
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ID: 86e98b7d

If $2(3t - 10) + t = 40 + 4t$, what is the value of $3t$?

Question ID 8652a731

Assessment	Test	Domain	Skill	Difficulty
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ID: 8652a731

How many solutions does the equation $12(x - 3) = -3(x + 12)$ have?

- A. Exactly one
- B. Exactly two
- C. Infinitely many
- D. Zero

Question ID b08cf45d

Assessment	Test	Domain	Skill	Difficulty
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ID: b08cf45d

$-49x = -98x$

How many solutions does the given equation have?

- A. Zero
- B. Exactly one
- C. Exactly two
- D. Infinitely many

Question ID a36030f7

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ID: a36030f7

If $\frac{x+6}{3} = \frac{x+6}{13}$, the value of $x + 6$ is between which of the following pairs of values?

- A. -7 and -3
- B. -2 and 2
- C. 2 and 7
- D. 8 and 13