

1 Simplify  $(11z + 9) - (4z - 3)$

- A  $7z - 12$
- B  $7z + 12$
- C  $7z + 6$
- D  $15z + 6$

$$(11z + 9) - (4z - 3)$$

$$11z + 9 + -4z + 3$$

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2 Solve:  $6x - (4x - 1) = 2$

- A  $-\frac{1}{10}$
- B  $\frac{1}{10}$
- C  $-\frac{1}{2}$
- D  $\frac{1}{2}$
- E No solution
- F All real numbers

$$6x - (4x - 1) = 2$$

$$6x - 4x + 1 = 2 \quad x = \frac{1}{2}$$

$$2x + 1 = 2$$

$$2x = 1$$

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3 Solve:  $-9x + 4(3x - 4) = -8 - 5x$

- A 12
- B 1
- C -3
- D -1
- E No solution
- F All real numbers

$$\begin{aligned}
 -9x + 12x - 16 &= -8 - 5x \\
 3x - 16 &= -8 - 5x \\
 8x - 16 &= -8 & x = 1 \\
 8x &= 8
 \end{aligned}$$

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4 Solve:  $\frac{2}{5}x - \frac{1}{3}x = 5$

- A -75
- B 75
- C -150
- D 150
- E No solution
- F All real numbers

$$\begin{aligned}
 15 \left( \frac{2}{5}x - \frac{1}{3}x \right) &= (5)15 \\
 6x - 5x &= 75 \\
 x &= 75
 \end{aligned}$$

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5 Solve:  $\frac{3(8-x)}{5} = x$

- A 3
- B -3
- C 24
- D -24
- E No solution
- F All real numbers

$$\cancel{5} \left( \frac{3(8-x)}{\cancel{5}} \right) = 5(x)$$

$$3(8-x) = 5x$$

$$24 - 3x = 5x$$

$$24 = 8x$$

$$3 = x$$

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6 Solve:  $2(x+5) - (2x+10) = 0$

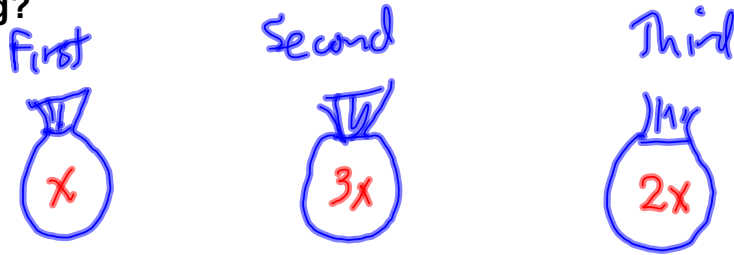
- A 5
- B -5
- C 0
- D 1
- E No solution
- F All real numbers

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

$$0 = 0$$

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- 7 30 marbles are to be divided into three bags so that the second bag has three times as many marbles as the first bag and the third bag has twice as many as the first bag. How many marbles will be in the third bag?



$$x + 3x + 2x = 30$$

$$6x = 30$$

$$x = 5$$

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- 8 The sum of three consecutive integers is 402. What is the middle number?

Three consecutive integers.

$$x + (x+1) + (x+2) = 402$$

$$x + x + 1 + x + 2 = 402$$

$$3x + 3 = 402$$

$$3x = 399$$

$$x = 133$$

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- 9 Find the value of the unknown variable.

$$A = \frac{1}{2}(B + b)h$$

$$A = 74, b = 17, B = 20$$

$$74 = \frac{1}{2}(20 + 17)h$$

$$\frac{2}{37}(\frac{74}{1}) = \frac{2}{37}(\frac{37}{2}h)$$

$$4 = h$$

Correct Answer: (b) 4

More Clear

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