

A.REI.B.3: Interpreting Solutions 2

- 1 The statement $|-15| < x < |-20|$ is true when x is equal to
 - 1) -16
 - 2) -14
 - 3) 17
 - 4) 21

- 2 Which number is in the solution set of the inequality $5x + 3 > 38$?
 - 1) 5
 - 2) 6
 - 3) 7
 - 4) 8

- 3 Which value of x is in the solution set of the inequality $-2x + 5 > 17$?
 - 1) -8
 - 2) -6
 - 3) -4
 - 4) 12

- 4 Which value of x is in the solution set of the inequality $-4x + 2 > 10$?
 - 1) -2
 - 2) 2
 - 3) 3
 - 4) -4

- 5 Which value of x is in the solution set of $-3x + 8 \geq 14$?
 - 1) -3
 - 2) -1
 - 3) 0
 - 4) 3

- 6 Which value of x is a solution of the inequality $25x - 100 < 250$?
 - 1) 13
 - 2) 14
 - 3) 15
 - 4) 16

- 7 Which value of x is in the solution set of $\frac{4}{3}x + 5 < 17$?
 - 1) 8
 - 2) 9
 - 3) 12
 - 4) 16

- 8 Which value of x is in the solution set of the inequality $-2(x - 5) < 4$?
 - 1) 0
 - 2) 2
 - 3) 3
 - 4) 5

- 9 Which value of x is a solution of $-5x - 3 > -2x + 6$?
 - 1) -4
 - 2) -3
 - 3) 3
 - 4) 0

- 10 In the set of positive integers, what is the solution set of the inequality $2x - 3 < 5$?
 - 1) $\{0, 1, 2, 3\}$
 - 2) $\{1, 2, 3\}$
 - 3) $\{0, 1, 2, 3, 4\}$
 - 4) $\{1, 2, 3, 4\}$

- 11 Find all the negative odd integers that satisfy the following inequality: $-3x + 1 \leq 17$

- 12 Given: $A = \{18, 6, -3, -12\}$
Determine all elements of set A that are in the solution of the inequality $\frac{2}{3}x + 3 < -2x - 7$.

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Answer Section

1 ANS: 3 REF: 081317ia

2 ANS: 4

$$5x + 3 > 38$$

$$5x > 35$$

$$x > 7$$

REF: 060311a

3 ANS: 1

$$-2x + 5 > 17$$

$$-2x > 12$$

$$x < -6$$

REF: fall0724ia

4 ANS: 4

$$-4x + 2 > 10$$

$$-4x > 8$$

$$x < -2$$

REF: 080805ia

5 ANS: 1

$$-3x + 8 \geq 14$$

$$-3x \geq 6$$

$$x \leq -2$$

REF: 081309ia

6 ANS: 1

$$25x - 100 < 250$$

$$25x < 350$$

$$x < 14$$

REF: 061517ia

7 ANS: 1

$$\frac{4}{3}x + 5 < 17$$

$$\frac{4}{3}x < 12$$

$$4x < 36$$

$$x < 9$$

REF: 060914ia

8 ANS: 4

$$-2(x - 5) < 4$$

$$-2x + 10 < 4$$

$$-2x < -6$$

$$x > 3$$

REF: 080913ia

9 ANS: 1

$$-5x - 3 > -2x + 6$$

$$-9 > 3x$$

$$-3 > x$$

REF: 061622ia

10 ANS: 2

$$2x - 3 < 5$$

$$2x < 8$$

$$x < 4$$

REF: 060118a

11 ANS:

$$-3x + 1 \leq 17$$

$$-5, -3, -1. \quad -3x \leq 16$$

$$x \geq -\frac{16}{3}$$

REF: 010536a

12 ANS:

$$-12. 3\left(\frac{2}{3}x + 3 < -2x - 7\right)$$

$$x + 9 < -6x - 21$$

$$7x < -30$$

$$x < \frac{-30}{7}$$

REF: 061034ia