# Unit 2 Assessment 1 Most Missed Questions

Name_____ Date_____

**TOTAL: (REI.1)_____/3 (REI.3 and ACED.4)_____/2 (REI.5 and REI.6)_____/4**

**1. REI.1** The following procedure was used to solve an equation.

Line 1: $\frac{x+2}{x-3} = 5$

Line 2: $\left(\frac{1}{x-3}\right)(x+2) = 5$

Line 3: $(x-3)\left(\frac{1}{x-3}\right)(x+2) = 5(x-3)$

Line 4: $1(x+2) = 5(x-3)$

Line 5: $x + 2 = 5x - 15$

Line 6: $17 = 4x$

Line 7: $\frac{17}{4} = x$

Which property assures the equation in line 4 is equivalent to the equation in line 3?

**A.** Commutative **B.** Associative **C.** Multiplicative inverse **D.** Reflexive

**2. REI.1** Which statement is justified by the symmetric property of equality?

**A.** If 2 + *x* = *y*, then *x* + 2 = *y* **B.** If *x* + 2 = *y,* then *x* + 2 = *y*

**C**. If *x* + 2 = *y* and *y* = 5, then *x* + 2 = 5 **D**. If x + 2 = y, then y = x + 2

**3. REI.1** Which statement illustrates the reflexive property of equality?

**A.** 3 + a = a + 3 **B**. If 3 + a = 5, then 3 + a – 5 = 5 – 3

**C**. If 3 + a = 5, then 5 = 3 + a **D**. 3 + a = 3 + a

**4. REI.3** What is the value of *x* in the equation $\frac{2}{3}x + 9 = 18$?

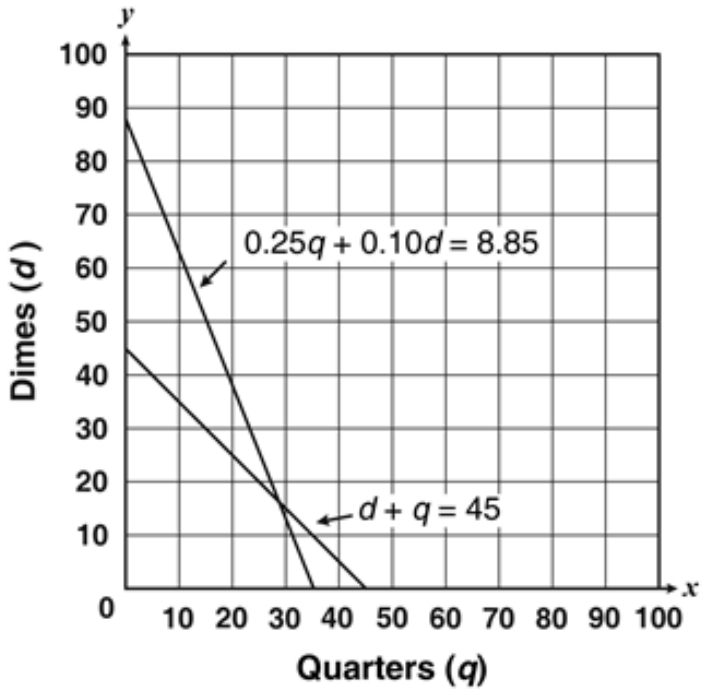
**A.** 6.0 **B.** 13.5 **C.** 18.0 **D.** 40.5

**5. A.CED.4**

Given the equation $P = \frac{R - C}{N}$, solve for R.

**A.** $R = \frac{P - C}{N}$ **B.** $R = PN + C$ **C.** $R = PC - N$ **D.** $R =$

**6. REI. 6**




Manuel has a bowl of quarters and dimes. There are 45 coins totaling $8.85. To find the number of each coin, Manuel used a system of linear equations and graphed them in the coordinate plane.

Based on the graph, about how many quarters are in the bowl?

**A.** 15 **B.** 30 **C.** 35 **D.** 90

**7. REI. 5** Read the following and answer the questions below:

-2x – y = -9
5x – 2y = 18

y =

**8. REI. 5** Read the following and answer the questions below:

-4x + 9y = 9
x – 3y = -6

**9. REI. 5**

Using the elimination method, Joe solved the system of equations $\begin{cases} 2x+y=9 \\ 3x-2y=10 \end{cases}$ for $y$ with the following steps.

| Steps | Reasons |
|---|---|
| 1. $\begin{Bmatrix} 2x+y=9 \\ 3x-2y=10 \end{Bmatrix}$ | 1. Given |
| 2. $\begin{Bmatrix} 3(2x+y=9) \\ 3x-2y=10 \end{Bmatrix} \rightarrow \begin{Bmatrix} 6x+3y=27 \\ 3x-2y=10 \end{Bmatrix}$ | 2. Multiply the first equation by 3 |
| 3. $\begin{Bmatrix} 6x+3y=27) \\ -2(3x-2y=10) \end{Bmatrix} \rightarrow \begin{Bmatrix} 6x+3y=27 \\ -6x-4y=-20 \end{Bmatrix}$ | 3. Multiply the second equation by –2 |
| 4. $\begin{Bmatrix} 6x+3y=27 \\ -6x-4y=-20 \end{Bmatrix}$ $-y=7$ | 4. Add the resulting equations from step 1 and step 2 |
| 5. $\frac{-y}{-1}=\frac{7}{-1}$; $y=-7$ | 5. Divide both sides of the equation by –1 |

Which statement **correctly** identifies the mistake Joe made?

**A.** In step 3, Joe multiplied the term $-2y$ by $2$ instead of by $-2$.

**B.** In step 4, Joe simplified $27+(-20)$ as $7$ instead of simplifying to $-7$.

**C.** In step 2, Joe should have multiplied the first equation by $2$ instead of by $3$.

**D.** In step 5, Joe should have added $1$ to both sides of the equation instead of dividing both sides of the equation by $-1$.