Name:	Date:
8.EE.7b	

1. What is the value of t that satisfies the equation below? (2016) (no calculator)

$$3(t+4)-2(2t+3)=-4$$

A. 
$$-\frac{11}{3}$$
 B.  $-\frac{4}{5}$ 

B. 
$$-\frac{4}{5}$$

\_\_\_2. What is the solution to the equation shown below?

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

A. 
$$x = -6$$

B. 
$$x = 4$$

C. 
$$x = -4.5$$

D. 
$$x = 9$$

\_\_\_\_\_3. What is the solution to the equation below?

$$5c + 4 = 2(c - 5)$$

A. 
$$c = -4\frac{2}{3}$$
 B.  $c = -3$  C.  $c = -2$ 

B. 
$$c = -3$$

$$C = -2$$

\_\_\_\_4. What is the solution to the equation shown below?

$$2.5(x + 5) = 7.5x - 0.5$$

A. 
$$x = 2.6$$

B. 
$$x = 1.1$$

C. 
$$x = -2.6$$

D. 
$$x = -1.1$$

\_\_\_\_5. What is the solution to the equation shown below? 
$$-\frac{1}{3}(6y + 6) + 21 = 3y$$
 (2022)

A. 
$$y = \frac{19}{5}$$

B. 
$$y = \frac{27}{5}$$

C. 
$$y = -\frac{9}{5}$$

A. 
$$y = \frac{19}{5}$$
 B.  $y = \frac{27}{5}$  C.  $y = -\frac{9}{5}$  D.  $y = -\frac{23}{5}$ 

(2014)

6. Solve the equation below for *d*.

$$0.2(d-6) = 0.3d + 5 - 3 + 0.1d$$

Show your work.

7. Solve the equation below.

$$0.4(2x + \frac{1}{2}) = 3[0.2x + (-2)] - 4$$

Show your work.

8. Determine the solution to the equation	below.
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$$3.1x + 7 - 7.4x = 1.5x - 6\left(x - \frac{3}{2}\right)$$

Show your work.

## 9. The steps a student took to solve an equation are shown below.

$$\frac{3}{4}(-8x+20) = -8(-x-3)$$

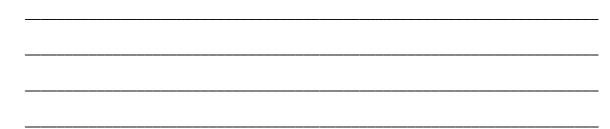
**Step 1:** -6x + 15 = 8x + 24

**Step 2:** 15 = 2x + 24

Step 3: -9 = 2xStep 4:  $x = -\frac{9}{2}$ 

What error did the student make and what is the correct value of x?

Explain your answer.



10. Determine the solution to the equation shown below.

$$3.2 - \frac{1}{2}(x+4) = 4.8x + 2 - 5.2x$$

Show your work.

Answer x = \_\_\_\_\_