

Warm-Up

A. $3x - 4 = -2(-3x + 5)$

$$3x - 4 = 6x - 10$$

$$-3x - 4 = -10 + 4$$

$$\frac{-3x}{-3} = \frac{-6}{-3}$$

$$x = 2$$

Solving equations with fractions....clear the fractions!!! Multiply each term by LCM
 [lowest common multiple]

$$\frac{1x}{2} + \frac{1x}{3} = 10$$

LCM:
 6
 2, 4, 6, 8, ...
 3, 6, 9, ...

$$\frac{6x}{2} + \frac{6x}{3} = 60$$

$$3x + 2x = 60$$

$$\frac{5x}{5} = \frac{60}{5}$$

$$x = 12$$

$$\overset{(12)}{\frac{2x}{3}} + \overset{(12)}{9} = \overset{(12)}{\frac{3x}{4}} - \overset{(12)}{6}$$

LCM:

12

$$\frac{24x}{3} + 108 = \frac{36x}{4} - 72$$

$$8x + 108 = 9x - 72 \leftarrow$$

$$-1x + 108 = -72$$

$$\frac{-1x}{-1} = \frac{-180}{-1}$$

$$x = 180$$

$$\overset{(15)}{\frac{2a}{3}} = \overset{(15)}{\frac{4a}{5}} + 7 \overset{(15)}{}$$

LCM:
15

$$\frac{30a}{3} = \frac{60a}{5} + 105$$

$$10a = \boxed{12a} + 105$$

$$\frac{-2a}{-2} = \frac{105}{-2}$$

$$a = 52.5$$

$$\frac{(12)2x}{3} + \frac{(12)11}{4} = 3 - \frac{(12)11x}{6}$$

LCM=
12

$$\frac{24x}{3} + \frac{132}{4} = 36 - \frac{132x}{6}$$

$$8x + 33 = 36 - 22x$$

$$30x + 33 = 36$$

$$30x \boxed{+33-33} = 36-33$$

$$\frac{30x}{30} = \frac{3}{36}$$

$$x = \frac{3}{30}$$

$$x = \frac{1}{10}$$

$$x = 0.1$$

$$\frac{2x}{3} + 4 = 9$$

↓

$$\frac{2x}{3} + 4 = 9$$

$$\frac{2x}{3} + \boxed{4-4} = 9-4$$

$$\frac{2x}{3} = 5 \quad (3)$$

$$\frac{2x}{2} = \frac{15}{2}$$

$$x = 7.5$$

LCM

$$\overset{(3)}{\frac{2x}{3}} + \overset{(3)}{4} = 9 \overset{(3)}{\quad}$$

$$\frac{6x}{3} + 12 = 27$$

$$2x + 12 = 27$$

$$2x + \boxed{12-12} = 27-12$$

$$\frac{2x}{2} = \frac{15}{2}$$

$$x = 7.5$$

$$\overset{(5)}{\frac{2}{5}}(m+4) = \overset{(5)}{\frac{1}{5}}(3m+9) \quad \text{LCM: } 5$$

$$\frac{10}{5}(m+4) = \frac{5}{5}(3m+9)$$

$$2(m+4) = 1(3m+9)$$

$$2\overset{3m}{m} + 8 = \boxed{3\overset{3m}{m} + 9} \quad \leftarrow$$

$$-1m + 8 = 9$$

$$-1m + 8 - 8 = 9 - 8$$

$$\frac{-1m}{-1} = \frac{1}{-1}$$

$$m = -1$$

$$-1x = 2$$

$$x = -2$$

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#7 [Quiz based on this question]

