

Warm-Up

February 10, 2020

Solve:

$$\overset{(21)}{\frac{2}{3}} + \overset{(21)}{\frac{x}{3}} = \overset{(21)}{4} - \overset{(21)}{\frac{6x}{7}}$$

LCM = 21

$$\frac{42}{3} + \frac{21x}{3} = \frac{84 - 126x}{7}$$

$$14 + 7x = 84 - 18x$$

$$14 + 25x = 84$$

$$\frac{25x}{25} = \frac{70}{25}$$

$$x = 2.8$$

group then solve

↳ like terms together

$$2(r - 3) - 3 = 3r - 6$$

$$2r \boxed{-6-3} = 3r - 6$$

Group

$$2r - 9 = \boxed{3r - 6}$$

$$-1r \boxed{-9} = -6 + 9$$

$$\frac{-1r}{-1} = \frac{3}{-1}$$

$$r = -3$$

Group like terms then solve.

$$2.5x - 4 + 1.2x = 3.5$$

$$\boxed{2.5x + 1.2x} - 4 = 3.5$$

Group

$$3.7x - 4 = 3.5$$

$$\frac{3.7x}{3.7} = \frac{7.5}{3.7}$$

$$x = 2.02$$

$$\overset{(6)}{\frac{5x}{2}} - \overset{(6)}{3} = \overset{(6)}{8} + \overset{(6)}{\frac{2x}{3}}$$

LCM = 6

$$\frac{30x}{2} - 18 = 48 + \frac{12x}{3}$$

$$15x - 18 = 48 + 4x$$

$$11x - 18 = 48$$

$$\frac{11x}{11} = \frac{66}{11}$$

$$x = 6$$

$$-38 - 7x = -7x + 2(-4 - 5x)$$

$$-38 - 7x = -7x - 8 - 10x$$

$$-38 - 7x = \boxed{-7x - 10x} - 8$$

Group

$$\boxed{-38 - 7x = -17x - 8}$$

$$-38 + 10x = -8$$

$$\boxed{-38 + 38} + 10x = -8 + 38$$

$$\frac{10x}{10} = \frac{30}{10}$$

$$x = 3$$

solve

$$38 - 8x = -8 - 7(5 + 5x)$$

$$38 - 8x = \boxed{-8 - 35} - 35x$$

$$38 - 8x \overset{+35x}{=} -43 - 35x \leftarrow$$

$$38 \overset{+38}{+} 27x = -43 \overset{+38}{\leftarrow}$$

$$\frac{+27x = -81}{+27 \quad +27}$$

$$x = -3$$

Grouping

Worksheet...Even questions only!

Do not mark on sheet!



$$-7a - 1(a+b)$$

Assignment

● Solve each equation.

1) $2(n + 6) = -2n$

3) $6(6 - 2x) = -12 - 4x$

5) $-38 - 7x = -7x + 2(-4 - 5x)$

7) $-3 + 2m = -4m + 5(1 + 2m)$

9) $17 + 3n = -1 - 6(4 + 3n)$

11) $-19 + 8v = 4(1 + v) + 5$

13) $2(x + 5) = 3 - 5x$

15) $8(a + 8) - 5 = 14 - a$

17) $-6 - 5(1 - 10x) = 7(6x - 5)$

19) $8(-5 + 2n) + 6n = -2 - 8(5 - 3n)$

21) $3(10x + 10) = 12 + 9(2 + 12x)$

2) $-5a + 18 = -7a - (a + 6)$

4) $3(1 - 4k) = -4k + 35$

6) $21 + 6v = -8(6 - 3v) - 3$

8) $28 - 2r = -8(2r + 7)$

10) $3x - 30 = 6(7x + 8)$

12) $-8(3 + 2b) = 12 + 2b$

14) $-(x + 7) - 6 = -13 - 5x$

16) $-10 + 2k = -8(8k - 7)$

18) $3(k - 6) - 8 = 3(-6 + 2k) - 11$

20) $3(1 + 3n) = 8(n + 2)$

22) $10(p - 6) = -10(6 - 8p)$

Answers to Assignment (ID: 1)

- | | | | |
|--------------|--------------|--------------|--------------|
| 1) $\{-3\}$ | 2) $\{-8\}$ | 3) $\{6\}$ | 4) $\{-4\}$ |
| 5) $\{3\}$ | 6) $\{4\}$ | 7) $\{-2\}$ | 8) $\{-6\}$ |
| 9) $\{-2\}$ | 10) $\{-2\}$ | 11) $\{7\}$ | 12) $\{-2\}$ |
| 13) $\{-1\}$ | 14) $\{0\}$ | 15) $\{-5\}$ | 16) $\{1\}$ |
| 17) $\{-3\}$ | 18) $\{1\}$ | 19) $\{1\}$ | 20) $\{13\}$ |
| 21) $\{0\}$ | 22) $\{0\}$ | | |