

# 5.3 Equations with Grouping

Math 7

Write your questions here!



1)

2)

G  
E  
M  
D  
A  
S

You try one!

3)

4)

The Right Group is Important

5)

G  
E  
M  
D  
A  
S

Last one...you try on your own! Pause the video!

6)

-

## SUMMARY:

Now, summarize your notes here!



## 5.3 Equations with Grouping

# PRACTICE

Directions: Brust solved the following equations. He DEFINITELY made some mistakes! Using complete sentences explain his mistake and then find the correct solution.

1)

$$\begin{array}{r} \frac{2}{3}(g+8) = 6 \\ \hline 2\left(\frac{2}{3}(g+8)\right) = 6(2) \\ \hline \frac{3(g+8) = 12}{3} = 3 \\ \hline g+8 = 4 \\ -8 = -8 \\ \hline g = -4 \end{array}$$

2)

$$\begin{array}{r} \frac{f-7}{3} = -5 \\ \hline 3\left(\frac{f-7}{3}\right) = 3(-5) \\ \hline f+7 = -15 \\ -7 = -7 \\ \hline f = -22 \end{array}$$

Directions: Solve and check.

3)  $10 = \frac{5}{3}x$

4)  $\frac{1}{4}x - 10 = -7$

5)  $\frac{k-4}{2} = -7$

6)  $-3(n+10) = -9$

7)  $\frac{3}{4}x - 20 = -11$

8)  $-16 = 4(p-2)$

**Directions: Solve and check.**

9)  $10 - \frac{2}{9}x = 6$

10)  $9 = \frac{14+f}{3}$

11)  $\frac{p-6}{5} = -3$

**Directions: Sully solved the following. Check his solution to see if it is correct. If incorrect, find the correct solution.**

13) Sully says  $n = 3$

$$8 = \frac{2}{3}n + 6$$

14) Sully says  $n = 25$ .

$$\frac{5-n}{2} = 10$$

## 5.3 Equations with Grouping

## WRAP UP

**Directions: Solve and check.**

1)  $4 - \frac{3}{2}x = 22$

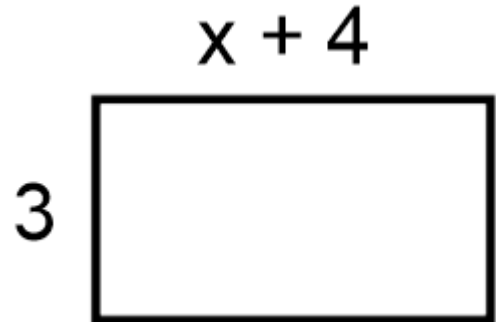
2)  $4(g + 5) = -24$

3) The area of the rectangle shown below is 24 meters squared.

**Part A**

Which equation represents the area of the rectangle?

- (A)  $3x + 4 = 24$
- (B)  $2x + 14 = 24$
- (C)  $3(x + 4) = 24$
- (D)  $x + 12 = 24$



**PART B**

Solve the equation.

**PART C**

Fill in the box with the correct dimensions of the rectangle.

3 meters by  meters

**EXIT TICKET –**

Use the equation below and determine which of the given situations could be modeled by the equation.

$$2(x + 5) = 20$$

- Twice the sum of a number and 5 is 20.
- The sum of twice a number and 5 is 20.
- Mr. Brust has \$5 to start the week. His kids give him some money to end the week. The following week he doubles the total and has \$20. How much did his kids give him?
- Mr. Brust starts with \$5 and gets \$2 more every day. How many days until he has \$20?