

7th Grade  
March 18, 2021

Today we will:

-Work through  
Review Packet  
together--finish  
individually

-Work on THQ if  
done early



HOMEWORK:

Complete review packet if  
not done in class

THQ due TOMORROW

ALEKS assignment:  
60 min and 5 topics  
due Monday by 11:59pm



Ch. 8  
Lessons 1-3

Name \_\_\_\_\_

EQUATIONS

Remember, your goal when solving equations is to isolate the variable.

Work backwards to solve the equation.

To do this, do the inverse operation.

You must always balance the equation!

This means do the same thing to each side.

①  $0.5m = 3.5$   
 $\frac{0.5}{0.5} \frac{0.5}{0.5}$   
 $m = 7$

③  $1.67x = 10.02$

②  $1.86 = -6.2x$

④  $\frac{1}{13}n = 2$   
 $\frac{13}{13} \frac{1}{13}$

$\frac{2}{1} \times \frac{13}{1} = \frac{26}{1}$   
 $n = 26$

⑤  $-\frac{8}{9}h = 24$

$\frac{13}{2}$   
 $\frac{26}{1}$

⑥  $\frac{4}{3}m = \frac{8}{15}$

When solving 2-step equations, you still need to work backwards.

You need to go backwards from Order of Operations, which means you need to first take care of

addition and subtraction, THEN multiplication and division.

$$\textcircled{1} \quad 3t - 13 = 2$$

$$\begin{array}{r} \phantom{3t} + 13 \phantom{=} + 13 \\ \hline 3t \phantom{=} = 15 \\ \hline \boxed{3} \phantom{=} = \boxed{3} \\ \phantom{3t} \phantom{=} = \phantom{3} \boxed{5} \end{array}$$

$$\textcircled{3} \quad 15 - \frac{1}{7}n = 13$$

$$\textcircled{5} \quad \frac{1}{6}k + 8 = 12$$

$$\textcircled{2} \quad -8n - 7 = 57$$

$$\begin{array}{r} \phantom{-8n} \phantom{=} \phantom{=} \phantom{=} \\ \hline -8n \phantom{=} = \phantom{=} \\ \hline \phantom{-8n} \phantom{=} = \phantom{=} \\ \phantom{-8n} \phantom{=} = \phantom{=} \phantom{=} \\ n = \phantom{=} \end{array}$$

$$\textcircled{4} \quad 6 = 20 + \frac{1}{3}x$$

$$\textcircled{6} \quad 9x + 10 = 20.8$$

$$\begin{array}{r} 9 \overline{) 10.8} \\ \underline{-18} \phantom{.0} \\ 10.8 \\ \underline{-18} \phantom{.0} \\ 10.8 \\ \underline{-18} \phantom{.0} \\ 10.8 \\ \underline{-18} \phantom{.0} \\ 10.8 \\ \underline{-18} \phantom{.0} \\ 10.8 \end{array}$$

$$\begin{array}{r} 9 \overline{) 10.8} \\ \underline{-9} \phantom{.0} \\ 10.8 \\ \underline{-9} \phantom{.0} \\ 10.8 \\ \underline{-9} \phantom{.0} \\ 10.8 \\ \underline{-9} \phantom{.0} \\ 10.8 \end{array}$$

$$\textcircled{x = 1.2}$$

$$\textcircled{7} \quad 21n - 11 = -210.5 \quad \textcircled{8} \quad \frac{7}{8}k - 40 = -26$$

$$\textcircled{9} \quad -\frac{1}{9}n - 8 = -4 \quad \textcircled{10} \quad 7h + 20 = -8$$

$$\textcircled{11} \quad 20 - \frac{3}{5}d = 29 \quad \textcircled{12} \quad \frac{1}{4}x - 5 = 1$$

$$\textcircled{13} \quad 5x - 9 = -24 \quad \textcircled{14} \quad 6x + 22 = 10$$

Translating into equations:

Break up your sentence into parts.

Review important words like:

more/less than   is/of   product  
quotient   adding/sum   subtracted/less  
decreased   difference   half

(15) Nine more than half a number is 21.  $9 + \frac{1}{2}x = 21$     $9 + \frac{1}{2}x = 21$

(16) Six less than  $\frac{1}{3}$  of a number is 27. \_\_\_\_\_

(17) The quotient of a number and three tenths decreased by 2 is 6.  
 \_\_\_\_\_

(18) Julie has 60 stuffed animals, which is 8 fewer than twice the number of stuffed animals that Carlie has.  
 \_\_\_\_\_

(19) The \$22 that Mara spent at a gift shop is \$4 more than twice the admission to the museum. How much is admission?

$$22 = 4 + 2a \rightarrow$$

$$\begin{array}{r} 22 \\ -4 \\ \hline 18 \\ \div 2 \\ \hline 9 \end{array}$$

(20) Joe hit 4 more home runs than twice the number of home runs Larry hit. Together, they hit 10 home runs. How many home runs did Joe hit?

$$\begin{aligned} J + L &= 10 \\ J &= 4 + 2L \end{aligned}$$

$$\begin{aligned} 4 + 2L + L &= 10 \\ 4 + 3L &= 10 \end{aligned}$$



Note:

For this chapter, you **MUST** solve **ALL EQUATIONS** by balancing! If you do not show balancing, you will get **HALF CREDIT**, even if you have the correct solution!



