

SSR

Read at a Level 0 until 9:15

Oct 21-9:14 PM

Subtracting Integers Opener

1. A bird is flying at an altitude of 50 feet above sea level when he sees a bird feeder 45 feet below. He cruises down to get some food, and then flies to his nest in a tree 10 feet above the feeder. Write an addition expression to model the bird's travels, and then determine the height of the nest.

$$50 + -45 + 10$$

$$60 + -45$$

$$= 15$$

2. A map is drawn using a scale of $\frac{1}{2}$ in = $\frac{1}{4}$ mile. If two streets appear 3 inches apart on the map, how many miles apart are they?

$1\frac{1}{2}$

$$\frac{1/2 \text{ in}}{1/4 \text{ mi}} \quad \frac{3 \text{ in}}{x}$$

$$\frac{\cancel{1/2} x}{\cancel{1/2}} = \frac{3}{4} \cdot \frac{2}{1} = \frac{6}{4}$$

3. It is recommended that adults drink 64 ounces of water a day. If I drink about 40 ounces a day, what percentage of the daily recommendation do I consume?

$$\% \times \text{op} = n\text{p}$$

$$\% \times 64 = 40$$

$$\begin{array}{r} 64 \overline{)40} \\ \underline{64} \\ 63 \\ \underline{63} \\ 63\% \end{array}$$

May 15-10:26 AM

Learning Target

I understand the relationship between subtraction and addition.

I can subtract integers.

May 15-10:28 AM

Subtracting Integers - Group Inquiry

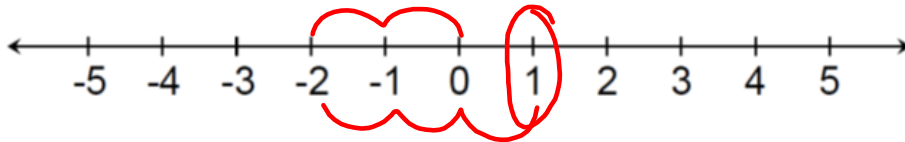
Complete with your table. We will discuss your thoughts on #7 and 8 in about 10 minutes.

May 15-10:34 AM

7. Look at your answers for questions 3 and 6. What do you notice? Explain below how subtraction relates to addition.

Addition + subtraction are opposites.
Subtraction is the same as adding the additive inverse.

8. Consider the problem $-2 - (-3)$. Use the number line and your thoughts above to try and discuss with your table how you may get an answer to this problem.



May 15-10:38 AM

Subtracting Integers - Notes

Subtraction is the same as adding the additive inverse (opposite).

Examples:

$$-3 - \textcircled{7} \\ -3 + -7 = -10$$

$$6 - \textcircled{-9} \\ 6 + 9 = 15$$

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Table Practice

$$-6 + 17$$

Rewrite each problem below as an equivalent addition problem.

1. $-5 - 8$
 $-5 + -8$

2. $6 - (-5)$
 $6 + 5$

3. $-2 - 8$
 $-2 + -8$

4. $-3 - 9$
 $-3 + -9$

5. $17 - 8$
 $17 + -8$

6. $4 - (-12)$
 $4 + 12$

Rewrite each problem below as an equivalent addition problem, then simplify.

7. $3 - (-8)$
 $3 + 8 =$

8. $-4 - (-16)$
 $-4 + 16 =$

9. $12 - (-9)$
 $12 + 9 =$

10. $7 - (-8)$
 $7 + 8 =$

11. $-12 - 8$
 $-12 + -8 =$

12. $4 - (-9)$
 $4 + 9 =$

13. $1 - (-10)$
 $1 + 10 =$

14. $-3 - (-8)$
 $-3 + 8 =$

15. $-20 - (-18)$
 $-20 + 18 =$

May 15-10:41 AM

Summary

On the back of your opener, please solve the following problems (make a pile on your table when you finish):

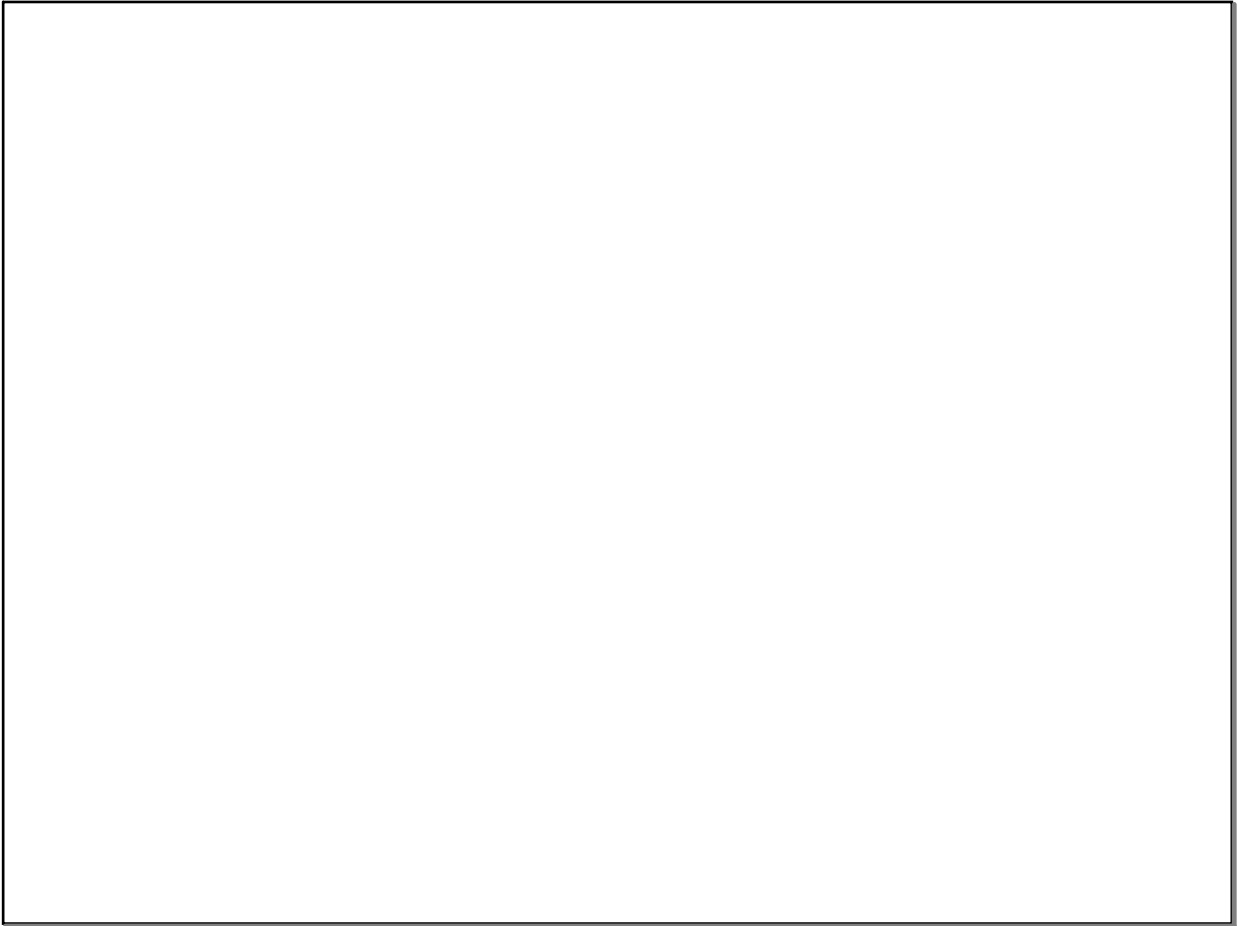
1. $-3 + 9$

2. $-3 + (-9)$

3. $-3 - (-9)$

4. $-3 - 9$

May 15-10:28 AM



May 15-10:43 AM