SSR

Read silently until 9:15

Subtraction Practice Opener

1. Subtraction is the same as: adding _____ the opposite

2. An inchworm can move \( \frac{3}{8} \) inch in 4 \( \frac{3}{8} \) seconds. What is his speed in inches per second?

\[
\frac{1/2 \text{ in}}{9 \text{ sec}} \quad \text{C.F.} \quad \frac{1}{2} \cdot \frac{2}{9} = \frac{2}{18}
\]

\[
\frac{1/9 \text{ inch}}{1 \text{ sec}}
\]

3. Add

a. \(-5 + 8 = +3\)

b. \(2 + (-10) = -8\)

c. \(-3 + (-9) = -12\)
Learning Target
I can solve real world and mathematical problems involving subtraction of integers.

More Subtraction
Discuss with your table how you would approach this problem: \(-4 - 8 - (-12)\)

\[-4 + (-8) + 12 = -12 + 12 = 0\]
Practice:

1. \(-6 - 9 = -15\)
   \[-6 + (-9) + (-13)\]
   \[-15 + (-13)\]
   \[-28\]

2. \(-5 + 9 = 14\)
   \[-5 + 9 + 14\]
   \[-5 + 23\]
   \[= 18\]

3. \(5 - 10 = -15\)
   \[5 - 10 + (-15)\]
   \[5 + (-25)\]
   \[= -20\]

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Word Problems

List as many subtraction words as you can think of:

- decrease
- withdraw
- less
- charge
- lower
- debit
- range
- fall
- difference
- minus
Examples:

1. In Anchorage, Alaska, Monday morning at 5:30 am it was 2°F. By 3:30 pm it was 50°F. What was the range in temperature on Monday in Anchorage?

\[ 1 - 2 - 49 \] \[ \rightarrow \boxed{1 - 2 + 49} = \boxed{51} \]

2. A diver dives off the 3m board to a depth of 2m below the surface. What was the length of his dive?

\[ 13 - 2 \] \[ \rightarrow \boxed{13 + 2} = \boxed{15} \] \[ \text{5m} \]

3. Monique has a balance of $12 in her account, and she withdraws $40 from the ATM. Because she overdraws her account (takes out more than she has), the bank charges her an additional $10. What is her account balance now? How much money does she need to deposit to break even (have $0)?

\[ 12 - 40 + 10 \]
\[ \boxed{12 + 40 - 10} \]
\[ \boxed{38} \]
\[ 12 - 50 = -38 \text{ account balance} \]

To break even she needs $38.

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**BINGO!**

*Set up your BINGO board using the numbers provided!!*
Expectations:

Chips: to cover the number space

Level 1: With partner the first minute. Completing Problems on page 60

Level 0: While someone comes up after first minute and completes the problem on the board.

\[ -3 - 1 - 4 = -8 \]
-7 - (-3) - (-10)

-7 + 3 + 10

-7 + 13 = +6

Elizabeth has $28 in her account, but she decides to go ahead and make a debit for $58 because she sees a really cute pair of shoes. What is her account balance now?

$28 - 58$

$28 + (-58) = -30$
Q4

$6 - (-9) - (-8)$

$6 + 9 + 8$

$15 + 8 = 23$

Q5

$12 - (-6) - 6 - (-12)$

$12 + 6 + 6 + 12$

$12 + 0 + 12 = 24$
Q6

\[-18 - 9 - (-4)\]
\[-18 + (-9) + 4\]
\[-27 + 4 = -23\]

Q7

\[-15 - (-18) - 2\]
\[-15 + 18 - 2\]
\[-17 + 18 = 1\]
8 - 16 - (-7)

\[ 8 + (-16) + 7 \]
\[ 15 + (-16) = -1 \]

11 - 36

\[ 11 + (-36) = -25 \]
Q10

\[-14 - (-9) + 7\]

\[-14 + 9 + 7\]

\[-14 + 16 = 2\]

Q11

\[8 - 15 + -8\]

\[8 + -15 + -8\]

\[0 + -15 = -15\]
Somewhere in a chilly place, the temperature yesterday at 5 pm was -9 degrees. Overnight, the temperature dropped another 7 degrees, before rising 13 degrees at sunrise today. What was the temperature at sunrise this morning in this chilly location?

\[-9 - 7 + 13\]

\[-9 + (-7) + 13\]

\[-16 + 13 = -3\]

\[7 + (-9) - (-7)\]

\[7 + (-9) + 7\]

\[14 + (-9) = 5\]
-6 + 2 - 8

-18 - 4 + 3
In another very cold place, it was -4 degrees at wake up time today. However, the temperature now that the sun is out is 24 degrees. What is difference in temperature between now and earlier this morning?
SUMMARY

On the back of your opener, please copy down and solve the following problems:

1. -6 + (-13)  
2. -5 - (-15)
3. 6 + (-13)  
4. 5 - 15
5. -3 + (-2) - (-4)  
6. -5 - 15
-13 - 8 + 4

-6 - 2 + 8
\[-16 + 12 - 18\]

\[-22 + 10 - 30\]