

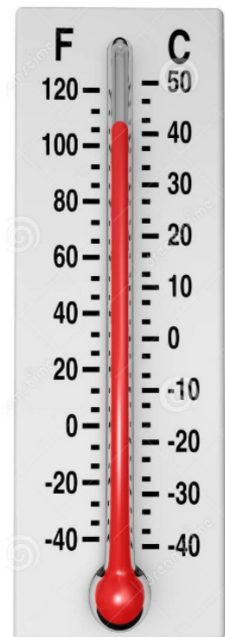
Pick up From the Front Table

- **White Board**
- **Marker**
- **Piece of Paper Towel**

Turn and Talk with your Partner

The temperature on a given day is 55° . Explain to a partner how to use addition to find how the temperature would change if the temperature in one day increased 15 degrees, decreased 20 degrees, and then increased 8 degrees.

Is the temperature at the end of the day greater or less than the temperature at the beginning of the day? Explain.



Write the Answer on your White Board

$7 + 6 =$

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- Turn to Page 52 in your Text Book
- Open Spiral to take notes

Lesson 2.2 Notes

Learning Target: Add Rational Numbers

Lesson 2.2

Learning Target: Add Rational Numbers

To add rational numbers,
use the same rules you used
when adding integers

Add Numbers with SAME sign

$6 + 7 = 13$

$-3 + -8 = -11$

Add Numbers with DIFFERENT sign

$15 + (-9) = 6$

$-12 + 2 = -10$

(find the *difference*, take sign of the "team that wins")

Example 1

$$-\frac{8}{3} + \frac{5}{6}$$

Think:

$$\frac{-8 \cdot 2}{3 \cdot 2} = \frac{-16}{6}$$

$$\begin{aligned} \frac{-16}{6} + \frac{5}{6} &= \frac{-16 + 5}{6} \\ &= -\frac{11}{6} \end{aligned}$$

Try this on your own

$$\frac{5}{4} + \left(-\frac{7}{12}\right)$$

$$\frac{5}{4} + \left(-\frac{7}{12}\right)$$

$$\begin{array}{r} 5 \cdot 3 \quad 15 \\ \frac{5}{4} \cdot 3 \rightarrow \frac{15}{12} \end{array}$$

$$\frac{15}{12} + \left(-\frac{7}{12}\right) = \frac{15 + (-7)}{12}$$

$$= \frac{8}{12} = \frac{2}{3}$$

Example 2

$$\frac{15}{4} + \left(-4\frac{1}{3}\right)$$

$$\frac{15 \cdot 3}{4 \cdot 3} + \left(-\frac{13 \cdot 4}{3 \cdot 4}\right) = \frac{45}{12} + \left(-\frac{52}{12}\right)$$

$$\frac{45 + (-52)}{12} = \frac{-7}{12}$$

Try this on your own

$$-1\frac{4}{5} + 2\frac{3}{10}$$

$$-1\frac{4}{5} + 2\frac{3}{10}$$

$$-1\frac{9}{10} + \frac{23}{10} = -\frac{18}{10} + \frac{23}{10} = \frac{5}{10}$$

$$\frac{1}{2}$$

Example **3** $-4.05 + 7.62$

Line up the decimal points

Different Signs so Find the **Difference**

$$\begin{array}{r} \\ 5 \\ 7. \cancel{6} \cancel{2} \\ - 4.05 \\ \hline 3.57 \end{array}$$

Think:

=

Try this

$$3.8 + (-9.06)$$

$$\begin{array}{r} 8 \quad 10 \\ 9.06 \\ - 3.80 \\ \hline -5.26 \end{array}$$

Example 4

Evaluate $2x + y$ when $x = \frac{1}{4}$ and $y = -\frac{3}{2}$

$$2\left(\frac{1}{4}\right) + \frac{-3}{2} = \frac{2}{4} + \frac{-3}{2}$$

$$\frac{1}{2} + \left(\frac{-3}{2}\right) = \frac{1 + (-3)}{2} = \frac{-2}{2}$$

$\textcircled{-1}$

Homework 2.2

Pg 54 & 55

#3-25 odds

Check Your Answers!

