

1.4. Notes: Adding and Subtracting Fractions

Draw a picture to represent for and solve each sum.

1. $3 + 7 =$

PICTURE

+

ANSWER:

2. $\frac{3}{8} + \frac{7}{8}$

PICTURE

+

ANSWER:

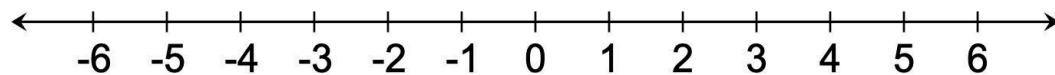
3. $1\frac{3}{8} + 2\frac{7}{8}$

PICTURE

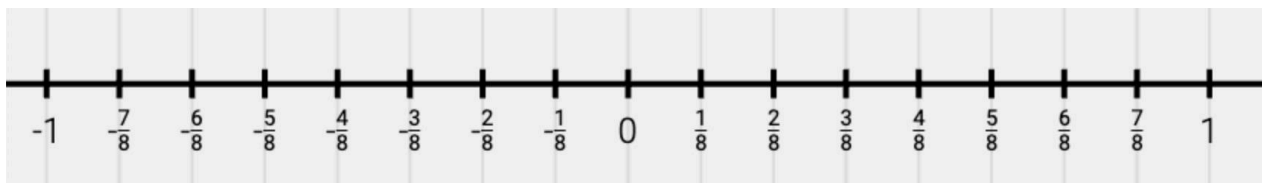
+

ANSWER:

4. Show $3 + (-7)$ using a number line



5. Show $\frac{3}{8} + \frac{-7}{8}$



To add or subtract rational numbers in fraction form that have a **COMMON DENOMINATOR**, write the numerator as a **sum/difference** of the integers.

e.g. $\quad = \quad =$

e.g. $\quad = \quad = \quad =$

e.g. $\quad = \quad =$

e.g. $\quad = \quad =$

Adding/Subtracting Rational Numbers in Mixed form

Option 1: Draw a number line to find the difference of the fractions below.

$$3\frac{2}{3} - 1\frac{1}{3}$$



Option 2: Write each mixed number as an improper fraction and solve.

$$3\frac{1}{5} - \frac{2}{5} = \frac{3 \cdot 1 + 1}{5} - \frac{2}{5} = \frac{\quad + 1}{5} - \frac{2}{5} =$$
$$\frac{\quad}{5} - \frac{2}{5} =$$

$$3\frac{3}{4} - 2\frac{1}{4} = \frac{\quad}{4} - \frac{\quad}{4} = \frac{\quad}{4} - \frac{\quad}{4} =$$
$$\frac{\quad}{4} - \frac{\quad}{4}$$

Adding Rational Numbers with Different Denominators:

Strategy: Find a common denominator

Example 1.

$$\frac{2}{3} + \frac{1}{4}$$

The multiples of **3** are 3, 6, 9, _____, _____

The multiples of **4** are 4, 8, _____, _____

The lowest
common
multiple of
these is _____



$$\frac{2}{3} + \frac{1}{4} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$

Example 2.

$$1\frac{2}{5} + 2\frac{1}{2} \qquad \text{LCM} = \underline{\hspace{1cm}}$$

$$1\frac{2}{5} + 2\frac{1}{2} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$

Example 3

$$3\frac{2}{7} - 1\frac{1}{3}$$

PRACTICE: Pg 24 # 1-2 (all)
