

**Learning Outcomes Covered:**

**3C:** I can subtract rational numbers.

**CONTENT Assessment Questions:**

1. Determine each difference.

$$\begin{aligned} \text{a) } & -\frac{3}{4} - \frac{1}{2} \\ & = -\frac{3}{4} - \frac{2}{4} \\ & = -\frac{5}{4} = -1\frac{1}{4} \end{aligned}$$

$$\begin{aligned} \text{b) } & 3\frac{3}{5} - \left(-5\frac{1}{2}\right) \\ & = 3\frac{6}{10} + 5\frac{5}{10} \\ & = 8\frac{11}{10} = 9\frac{1}{10} \end{aligned}$$

$$\begin{aligned} \text{c) } & 3\frac{2}{7} - 4\frac{3}{5} \\ & = \frac{23}{7} - \frac{23}{5} \\ & = \frac{115}{35} - \frac{161}{35} \\ & = -\frac{46}{35} = -1\frac{11}{35} \end{aligned}$$

$$\begin{aligned} \text{d) } & -3\frac{1}{4} - \left(-2\frac{2}{3}\right) \\ & = -3\frac{3}{12} + 2\frac{8}{12} \\ & = -\frac{39}{12} + \frac{32}{12} \\ & = -\frac{7}{12} \end{aligned}$$

2. Two climbers leave base camp at the same time. Climber A ascends 20.4 m, while climber B descends 35.4 m. How far apart are the climbers? Write a subtraction statement using rational numbers and then solve the problem.

$$\begin{aligned} & 20.4 - (-35.4) \\ & = 20.4 + 35.4 \\ & = 55.8 \text{ m} \end{aligned}$$

3. Use integers to estimate each difference. Then, determine each difference.

a)  $-4.7 - 5.9$

b)  $-43.91 - (-9.44)$

Estimate:  $-5 - 6 = -11$

Estimate:  $-44 + 9 = -35$

Actual:  $-10.6$

Actual:  $-43.91 + 9.44$   
 $= -34.47$

$$\begin{array}{r} 4.7 \\ + 5.9 \\ \hline 10.6 \end{array}$$

$$\begin{array}{r} 43.91 \\ - 9.44 \\ \hline 34.47 \end{array}$$

**CURRICULAR COMPETENCIES Questions:**

1. Is it possible to subtract 2 rational numbers and get a difference that is greater than both the numbers you subtracted? Explain your reasoning. Include examples of rational numbers in decimal form and in fraction form. (RA)

Yes, it's possible. Negative take away negative will become less negative or a positive number.

$$-1.5 - (-2.1) = -1.5 + 2.1 = \boxed{0.6}$$

$$0.6 > -1.5$$

&

$$0.6 > -2.1$$

**ONGOING LEARNING ACTIVITIES:**

CORE: Page 119: Curricular Competencies: 4, 8, 12

Content: 7, 9, 13

ADVANCED: Page 120: 20, 21, 22