3.3 Practice – Subtracting Rational Numbers

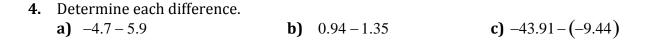1. Determine each difference.

   a) $-\dfrac{3}{4}-\dfrac{1}{2}$

   b) $3\dfrac{3}{5}-\left(-5\dfrac{1}{2}\right)$

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 to solve the problem.

3. Determine each difference.

   a) $\dfrac{17}{3}-\dfrac{19}{2}$

   b) $-\dfrac{13}{5}-\dfrac{7}{3}$

   c) $1\dfrac{5}{6}-6\dfrac{3}{4}$

d) $-\dfrac{19}{6} - \dfrac{7}{8}$ **e)** $\dfrac{15}{4} - \dfrac{5}{12}$ **f)** $-2\dfrac{1}{8} - \left(-4\dfrac{1}{3}\right)$

4. Determine each difference.
   a) $-4.7 - 5.9$ **b)** $0.94 - 1.35$ **c)** $-43.91 - (-9.44)$

5. In Asia, the lowest point on land is the shore of the Dead Sea, which is 417.5 m below sea level. The highest point is the peak of Mount Everest, which is 8844.43 m above sea level.

   a) Write each measurement above as a rational number.

   b) Write a subtraction statement that represents the distance between the lowest point and the highest point. What is this distance?

3.3 Practice – Answers
1. **a)** $-1\dfrac{1}{4}$ **b)** $9\dfrac{1}{10}$
2. $20.4 - (-35.4) = 55.8$; the distance between the climbers is 55.8 m.
3. **a)** $-3\dfrac{5}{6}$ **b)** $-4\dfrac{14}{15}$ **c)** $-4\dfrac{11}{12}$ **d)** $-4\dfrac{1}{24}$ **e)** $3\dfrac{1}{3}$ **f)** $2\dfrac{5}{24}$
4. **a)** -10.6 **b)** -0.41 **c)** -34.47
5. **a)** -417.5 and 8844.43   **b)** $8844.43 - (-417.5) = 9261.93$ m