Lesson 7: Addition and Subtraction of Rational Numbers

Problem Set

Represent each of the following problems using both a number line diagram and an equation.

1. A bird that was perched atop a $15\frac{1}{2} $-foot tree dives down six feet to a branch below. How far above the ground is the bird’s new location?
2. Mariah owed her grandfather $\$2.25$ but was recently able to pay him back $\$1.50$. How much does Mariah currently owe her grandfather?
3. Jake is hiking a trail that leads to the top of a canyon. The trail is $4.2$ miles long, and Jake plans to stop for lunch after he completes $1.6$ miles. How far from the top of the canyon will Jake be when he stops for lunch?
4. Sonji and her friend Rachel are competing in a running race. When Sonji is $0.4$ miles from the finish line, she notices that her friend Rachel has fallen. If Sonji runs one-tenth of a mile back to help her friend, how far will she be from the finish line?
5. Mr. Henderson did not realize his checking account had a balance of $\$200$ when he used his debit card for a $\$317.25$ purchase. What is his checking account balance after the purchase?
6. If the temperature is $-3℉$ at $10:00$ p.m., and the temperature falls four degrees overnight, what is the resulting temperature?