**Activity 50: ATP Production**

***Learning Objective***

*Count the number of ATP produced during glucose catabolism*

**Estimated Completion Time** 30 Minutes

**Instructor Information**

This activity assumes that the oxidative catabolism of glucose has been discussed. The answer key assumes the nucleotide output of 2.5 ATP per 1 NADH and 1.5 ATP per 1 FADH2. Some textbooks offer different values.

**ANSWERS TO QUESTIONS**

1. 7 ATP

2. 5 ATP

3. One molecule of glucose provides 2 acetyl CoA. Each acetyl CoA produces a total of 10 ATP in one turn of the citric acid cycle, for a total of 20 ATP.

4. Combining answers for questions 1–3, 32 ATP.

**Activity 50: Skill Development**

1. a. 1.5 ATP b. 32 ATP c. 2.5 ATP d. 12 ATP