**Sumobot Challenge Post-Quiz Answer Key**

**1. What type of gear ratio did you use for your Sumobot?   
How did that affect the fight?**

**If a large gear ratio was used (big gear turning small gear), the robot was faster but sacrificed power.**

**If a small gear ratio was used (small gear turning big gear), the robot had a lot of power while sacrificing speed.**

**If the gear ratio used was close to 1 (similar-sized gears turning each other), the robot maintained a balance of both power and speed.**

**2. How did you change the design of your robot and/or your program to help you complete the task?**

**Several answers are possible, such as:**

**Changing gear ratio (power vs. speed)**

**Designing different structures to help fight the other robot**

**Designing a program so the robot moves directly towards the robot opponent**