

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