

Sumobot Challenge Pre-Quiz **Answer Key**

1. What must you keep in mind when building a robot to fight another robot by trying to push it out of a ring?

Example possible answers:

- **Robot structure, that is, to scoop the other robot, pushing mechanism, etc.**
- **Robot weight**
- **Robot gear ratio: power vs. speed**

2. How can you use gears to your advantage in the competition?

Example possible answers:

- **Use a low gear ratio (small gear turning a big gear) and focus on a powerful attack.**
- **Use a high gear ratio (large gear turning a small gear) and focus on a speedy attack.**
- **Use a medium gear ratio and balance between both power and speed.**