Performance Task

4.4 Newton's Third Law of Motion 24.

A car weighs 2,000 kg. It moves along a road by applying a force on the road with a parallel component of 560 N. There are two passengers in the car, each weighing 55 kg. If the magnitude of the force of friction experienced by the car is 45 N, what is the acceleration of the car?

a. 0.244 m/s^2
b. 0.265 m/s^2
c. 4.00 m/s^2
d. 4.10 m/s^2

Teacher Support

Teacher Support This performance task gives your students the opportunity to practice content and skills that support the following NGSS performance expectations and/or science practices:

- NGSS HS-PS2-1: Students who demonstrate understanding can: Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration.