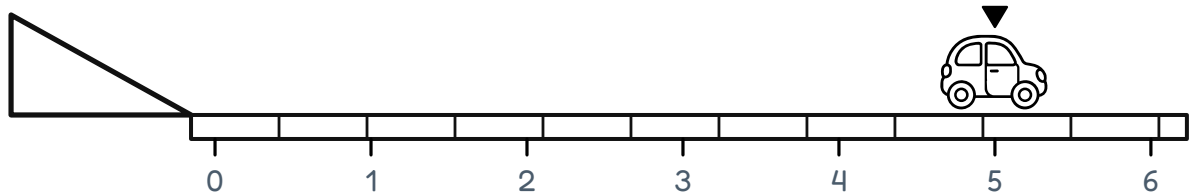


Smooth and rough surfaces

The same toy car rolled down the same ramp onto two floors. Answer the questions.

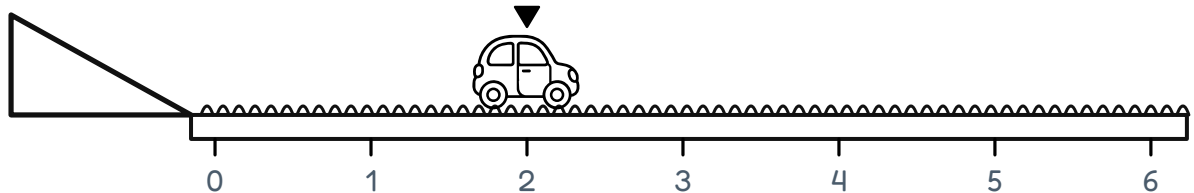
Test 1

smooth tile



Test 2

rough carpet



① Use the tests and what you know about friction. Fill in the best answer. _____

1. On which floor did the toy car roll farther?
 - ☐ A. the smooth tile
 - ☐ B. the rough carpet
 - ☐ C. they were the same
2. Why did the car stop sooner on the carpet?
 - ☐ A. The carpet made more friction.
 - ☐ B. The carpet made less friction.
 - ☐ C. The carpet pushed the car forward.
3. Sam gives the car the same push on wood and on grass. Where will it roll farther?
 - ☐ A. on the grass
 - ☐ B. on the wood floor
 - ☐ C. it will not roll on either
4. What does friction do to a moving object?
 - ☐ A. speeds it up
 - ☐ B. slows it down
 - ☐ C. makes it lighter
5. Where is a heavy box easier to slide?
 - ☐ A. on a rough sidewalk
 - ☐ B. on a shiny gym floor
 - ☐ C. both are the same
6. In a Winnipeg winter, workers spread sand on icy sidewalks. Why?
 - ☐ A. to make the ice melt faster
 - ☐ B. to add friction so people do not slip
 - ☐ C. to make the ice smoother
7. A hockey puck slides a long way on ice because the ice
 - ☐ A. is smooth and makes little friction
 - ☐ B. is rough and makes lots of friction
 - ☐ C. pulls the puck
8. Which would help you stop fast on a gym floor?
 - ☐ A. running in socks
 - ☐ B. shoes with bumpy rubber soles
 - ☐ C. shoes with smooth, slippery soles