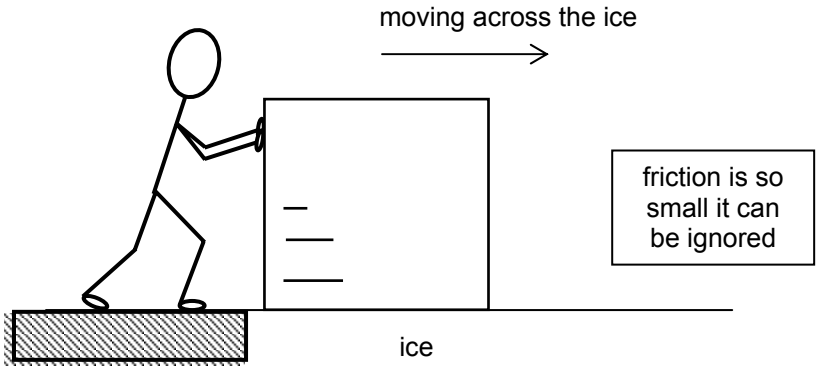
3

A large box is sitting on an ice rink. Sam exerts a force forwards → on the box, and it moves across the ice.

The ice is very smooth. The friction force on the box is so small that it can be ignored.



Think about the forces **acting on Sam** while he is pushing. Which of the following statements is correct?

Tick ONE box (✓)

❑ While Sam is pushing, he exerts a force on the box. The box does **not** exert a force on Sam.

❑ While Sam is pushing, he exerts a force on the box. The box also exerts a force on Sam in the opposite, ie. (←), direction. The force exerted on Sam by the box is **smaller**.

❑ While Sam is pushing, he exerts a force on the box. The box also exerts a force on Sam in the opposite, ie. (←), direction. The two forces are **the same size**.

❑ While Sam is pushing, he exerts a force on the box. The box also exerts a force on Sam in the opposite, ie. (←), direction. The force exerted on Sam by the box is **bigger**.