

- 3** Two forces F_1 and F_2 are applied to an object initially at rest. F_1 is constant while F_2 acts in the opposite direction of F_1 with a magnitude that is proportional to the square of the speed of the object.

Which statement best describes the motion of the object?

- A** Its speed will increase from zero to a maximum.
- B** Its speed will increase from zero to a maximum and then decrease.
- C** Its acceleration will increase from zero to a maximum.
- D** Its acceleration will increase from zero to a maximum and then decrease.