Use the following situation to answer the assessment questions:

A ball is rolling on the ground at 11 m/s [W]. The wind then causes an acceleration of 6.4 m/s 2 [E] that lasts for 2.75 seconds.

W, - E, +

- 1 Relative to east, what is the value of the initial velocity?
 - A 6.4 m/s
 - B -6.4 m/s
 - C 11 m/s
 - D -11 m/s

2 Relative to east, what is the change in velocity each second?

A 6.4 m/s^2

- B -6.4 m/s²
- C 11 m/s²
- D -11 m/s²

- 3 Calculate the final velocity of the soccer ball.
 - A -6.6 m/s [E]
 - B 6.6 m/s [E]
 - C 28.6 m/s [E]
 - D -28.6 m/ [E]

4 Calculate the displacement of the ball in that time.

A 54.5 m [E]

B -54.5 m [E]

C 6.1 m [E]

D -6.1 m [E]

5 Calculate the total distance the ball traveled in that time.

A 12.8 m

B -12.8 m

C 6.0 m

D -6.0 m