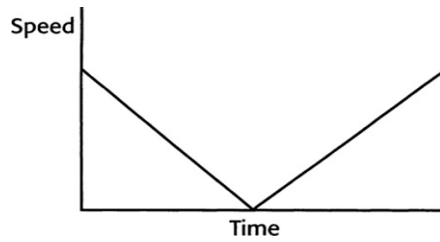


PHYSICS TEST 5 | ANSWER KEY

TOPIC: FALLING OBJECTS

1. d
2. c
3. c
4. c
5. c
6. b
7. d
8. c
- 9.



10. -9.3 m/s

Given

$$v_i = -3.0 \text{ m/s}^2$$

$$a = -g = -9.81 \text{ m/s}^2$$

$$\Delta x = -4.0 \text{ m}$$

Unknown

v_f

Solution

$$v_f^2 = v_i^2 + 2a\Delta x$$

$$v_f = \pm \sqrt{v_i^2 + 2a\Delta x} =$$

$$\pm \sqrt{(-3.0 \text{ m/s})^2 + (2)(-9.81 \text{ m/s}^2)(-4.0 \text{ m})}$$

$$= -9.3 \text{ m/s}$$

