Name: _____   Class:____   Date: _____
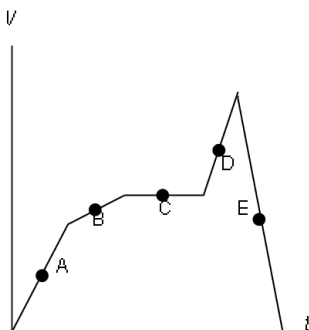
1. If vector **B** is added to vector **A**, the result is 6**i** + **j**. If **B** is subtracted from **A** , the result is –4**i** + 7**j**. What is the magnitude of **A** ?

Select the correct answer.

a. 5.1   b. 8.2

c. 5.4   d. 5.8

e. 4.1

2. At which point on the velocity–time graph is the acceleration zero?

Select the correct answer.

a. A   b. B

c. C   d. D

e. E

3. A 72 kg man climbs 5.0 steps, each step being 0.24 m high. How much work in J does he do?

Select the correct answer.

a. 2400   b. 420

c. 850   d. 2500

e. 880

4. What happens to the kinetic energy of a mass if its speed is doubled?

Select the correct answer.

a. It's divided by four.   b. It's doubled.

c. It's cut in half.   d. It remains the same.

e. It's increased by four times.

5. A projectile is fired horizontally from the top of a 50 m building. After 2 s, what do we know about its speed if we disregard air resistance?

Select the correct answer.

a. Its speed increases in the horizontal direction.   b. Its speed decreases in the horizontal direction.

c. Its speed increases in the vertical direction.   d. It has only horizontal components.

e. Its speed decreases in the vertical direction.

6. Joan attaches a spring to a scale fixed in space. She stretches the spring 0.200 m by means of a second scale. She uses the second scale's reading to calculate that she has done 12.0 J of work in stretching the spring. How much additional work (in J) must she do to stretch the spring an additional 0.100 m?

Select the correct answer.

a. 27   b. 15

c. 0   d. 12

e. 60

Name: _____   Class:____   Date: _____

1. e
2. c
3. c
4. e
5. c
6. b