

Use the given vectors to find the specified scalar.

1) $u = 14i + 5j$ and $v = -12i + 7j$; Find $u \cdot v$.
A) -203 B) 35 C) -168 D) -133 1) _____

2) $v = -8i + 3j$; Find $v \cdot v$.
A) 25 B) 576 C) 73 D) -48 2) _____

3) $u = 4i - 14j$ and $v = 11i - 10j$; Find $u \cdot v$.
A) 140 B) C) -96 D) 184 3) _____

4) $v = 5i + 7j$; Find $v \cdot v$.
A) 144 B) 1225 C) 70 D) 74 4) _____

Find the angle between the given vectors. Round to the nearest tenth of a degree.

5) $u = -3i + 9j$, $v = -2i + 5j$
A) 351.7° B) 1.7° C) 3.4° D) 13.4° 5) _____

6) $u = i - j$, $v = 4i + 5j$
A) 96.3° B) 99° C) -6.3° D) 6.3° 6) _____

Use the dot product to determine whether the vectors are parallel, orthogonal, or neither.

7) $v = 2i + j$, $w = i - 2j$
A) orthogonal B) parallel C) neither 7) _____

8) $v = 4i + 2j$, $w = 8i + 4j$
A) parallel B) orthogonal C) neither 8) _____

9) $v = 2i + 2j$, $w = 3i + 4j$
A) orthogonal B) parallel C) neither 9) _____

Answer Key

Testname: PRACTICE17

- 1) D
- 2) C
- 3) D
- 4) D
- 5) C
- 6) A
- 7) A
- 8) A
- 9) C