Lesson 9.4 Practice: Vectors: Magnitude, Direction and Components

School Launch · Trigonometry · Unit 9: Polar Coordinates and Vectors · Worksheet A

Scientific calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Find the magnitude of $\langle 3, 7 \rangle$ (exact). EASY

2. Find the magnitude of $\langle 7, 4 \rangle$ (exact). EASY

3. Find the magnitude of $\langle -6, -3 \rangle$ (exact). EASY

4. A vector has magnitude 13 and direction 225° (from the positive x-axis). Find its components (nearest tenth).

MEDIUM

5. A vector has magnitude 2 and direction 87° (from the positive x-axis). Find its components (nearest tenth).

MEDIUM

6. A vector has magnitude 35 and direction 50° (from the positive x-axis). Find its components (nearest tenth).

MEDIUM

7. A vector has magnitude 47 and direction 3° (from the positive x-axis). Find its components (nearest tenth).

MEDIUM

8. A vector has magnitude 49 and direction 195° (from the positive x-axis). Find its components (nearest tenth).

HARD

9. A vector has magnitude 21 and direction 97° (from the positive x-axis). Find its components (nearest tenth).

HARD

10. A vector has magnitude 9 and direction 55° (from the positive x-axis). Find its components (nearest tenth).

HARD