

Name _____

10-4 Lesson Master**Questions on SPUR Objectives**

See Student Edition pages 673–677 for objectives.

SKILLS Objective B

In 1–3, find the magnitude and direction of the given vector.

1. $\langle -2, 7 \rangle$ _____
2. the vector from $(1, 4)$ to $(3, 19)$ _____
3. the vector in standard position with its tip at $(-5, -12)$ _____
4. a. For a certain vector, its x -component is $\frac{1}{4}$ of its y -component. Find all possible directions for this vector. _____
 b. Find the magnitude of this vector in terms of its x -component. _____

USES Objective G

In 5 and 6, a description of a vector is given.

- a. Give a polar representation of the vector. b. Give a component representation of the vector.
- c. Interpret the components of the vector in context.
5. A cheetah is running 10 degrees south of west at a rate of 65 miles per hour.
 a. _____ b. _____
 c. _____
6. A 24-foot guy wire supporting a tent pole makes a 72° angle with the ground.
 a. _____ b. _____
 c. _____

REPRESENTATIONS Objectives L

In 7–9, sketch the vector whose description is given.

7. $\langle -3, 4 \rangle$

8. $[4, 315^\circ]$

9. the vector with initial point $(1, -2)$ and polar representation $[2, 210^\circ]$

