

Lesson 9 Practice Problems

1. Select **all** drawings in which a corresponding height *h* for a given base *b* is correctly identified.







2. For each triangle, a base and its corresponding height are labeled.

a. Find the area of each triangle.

b. How is the area related to the base and its corresponding height?

3. Here is a right triangle. Name a corresponding height for each base.



4. Find the area of the shaded triangle. Show your reasoning.



(From Unit 1, Lesson 8.)



5. Andre drew a line connecting two opposite corners of a parallelogram. Select **all** true statements about the triangles created by the line Andre drew.



- A. Each triangle has two sides that are 3 units long.
- B. Each triangle has a side that is the same length as the diagonal line.
- C. Each triangle has one side that is 3 units long.
- D. When one triangle is placed on top of the other and their sides are aligned, we will see that one triangle is larger than the other.
- E. The two triangles have the same area as each other.

(From Unit 1, Lesson 7.)

6. Here is an octagon. (Note: The diagonal sides of the octagon are *not* 4 inches long.)



(From Unit 1, Lesson 3.)

- a. While estimating the area of the octagon, Lin reasoned that it must be less than 100 square inches. Do you agree? Explain your reasoning.
- b. Find the exact area of the octagon. Show your reasoning.