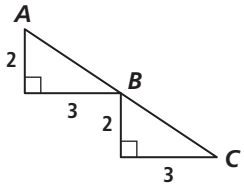
Name

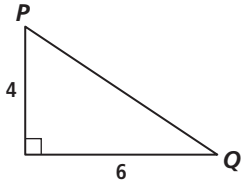
8-6A Lesson Master

Questions on SPUR Objectives
See pages 521–523 for objectives.

SKILLS Objectives D and E

1. Use the triangles at the right.





   a. Calculate AB. _____

   b. Express AC as $2 \cdot AB$. _____

   c. Find PQ. _____

   d. Does $AC = PQ$? Use decimal approximations to justify your answer. _____

2. Which of the expressions below are equal to $\sqrt{72}$? _____

   A $2\sqrt{18}$ B $3\sqrt{8}$ C $4\sqrt{6}$ D $6\sqrt{2}$

3. If $f(x) = 2\sqrt{x} \cdot \sqrt{x}$, what is $f(5)$? _____

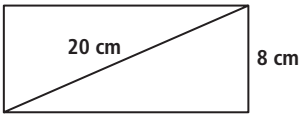
4. Simplify. Assume the variables are positive numbers.

   a. $\sqrt{5^2 + 12^2}$ _____

   b. $\sqrt{81a^8b^{20}}$ _____

   c. $\sqrt{9w^2 + 7w^2}$ _____

5. Find the area of the rectangle to the nearest hundredth. _____



6. *True or False.* Assume a is positive. $\sqrt{5a} \cdot \sqrt{5a} = 25a$ _____

7. *True or False.* $\sqrt[3]{4m} \cdot \sqrt[3]{4m} \cdot \sqrt[3]{4m} = 4m$ _____

8. If $g(x) = \sqrt[3]{x}$, what is $g(-27)$? _____

9. Order the following numbers from least to greatest.

   $2\sqrt{13}$, $\sqrt[3]{43}$, $\sqrt{23}$, $2\sqrt[3]{-8}$ _____

10. Show why 6 is the cube root of 216. _____