

Name

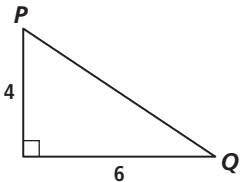
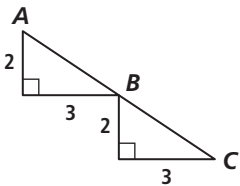
8-6A Lesson Master

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  $2\sqrt{18}$

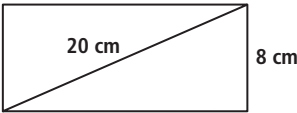
B  $3\sqrt{8}$

C  $4\sqrt{6}$

D  $6\sqrt{2}$
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3. If  $f(x) = 2\sqrt{x} \cdot \sqrt{x}$ , what is  $f(5)$ ?
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4. Simplify. Assume the variables are positive numbers.
- a.  $\sqrt{5^2 + 12^2}$

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

c.  $\sqrt{9w^2 + 7w^2}$
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5. Find the area of the rectangle to the nearest hundredth.



6. True or False. Assume  $a$  is positive.  $\sqrt{5a} \cdot \sqrt{5a} = 25a$
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7. True or False.  $\sqrt[3]{4m} \cdot \sqrt[3]{4m} \cdot \sqrt[3]{4m} = 4m$
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8. If  $g(x) = \sqrt[3]{x}$ , what is  $g(-27)$ ?
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9. Order the following numbers from least to greatest.
- $2\sqrt{13}$ ,  $\sqrt[3]{43}$ ,  $\sqrt{23}$ ,  $2\sqrt[3]{-8}$
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10. Show why 6 is the cube root of 216.
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