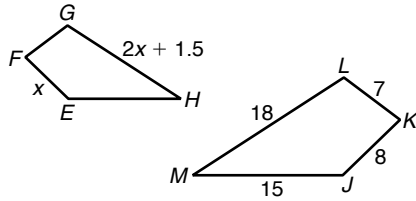


LESSON
7-2

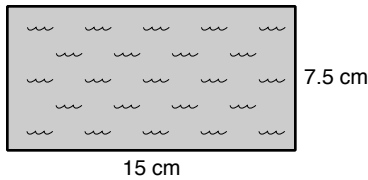
Problem Solving
Ratios in Similar Polygons

1. $EFGH \sim JKLM$. What is the value of x ?



2. The ratio of a model scale die cast motorcycle is 1 : 18. The model is $5\frac{1}{4}$ inches long. What is the length of the actual motorcycle in feet and inches?

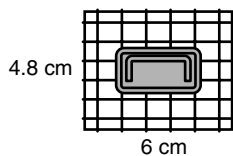
3. A diagram of a new competition swimming pool is shown. If the width of the pool is 25 meters, find the length of the actual pool.



4. Rectangle A has side lengths 16.4 centimeters and 10.8 centimeters. Rectangle B has side lengths 10.25 centimeters and 6.75 centimeters. Determine whether the rectangles are similar. If so, write the similarity ratio.

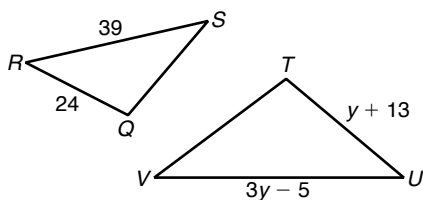
Choose the best answer.

5. A pet store has various sizes of guinea pig cages. A diagram of the top view of one of the cages is shown. What are possible dimensions of this cage?



- A** 28 in. by 24 in. **C** 30 in. by 24 in.
B 28 in. by 18 in. **D** 30 in. by 18 in.

7. $\triangle QRS \sim \triangle TUV$. Find the value of y .



- A** 3.6 **C** 19
B 5.5 **D** 33

6. A gymnasium is 96 feet long and 75 feet wide. On a blueprint, the gymnasium is 5.5 inches long. To the nearest tenth of an inch, what is the width of the gymnasium on the blueprint?

- F** 3.7 in. **H** 7.0 in.
G 4.3 in. **J** 13.6 in.

8. $\triangle ABC$ has side lengths 14, 8, and 10.4. What are possible side lengths of $\triangle DEF$ if $\triangle ABC \sim \triangle DEF$?

- F** 28, 20, 20.8
G 35, 16, 20.8
H 28, 20, 26
J 35, 20, 26