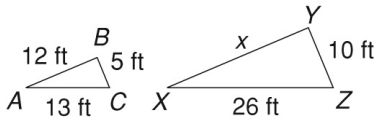
Name _____ Date _____ Class _____

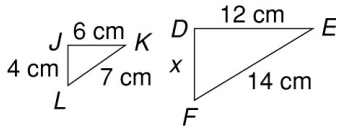
LESSON 5

Proportional Relationships

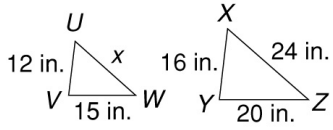
Practice A: Using Similar Figures

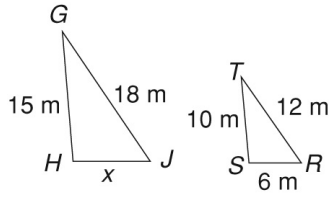
For each pair of similar figures write a proportion containing the unknown length. Then solve.

1. 

2. 

_____ _____

3. 

4. 

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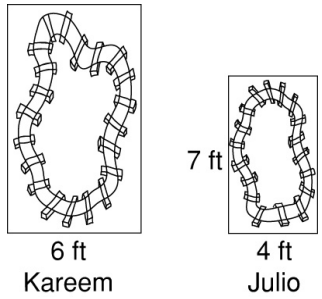
5. Kareem and Julio have rectangular model train layouts that are similar to each other. Julio's layout is 4 feet by 7 feet. Kareem's layout is 6 feet wide. What is the length of Kareem's layout?



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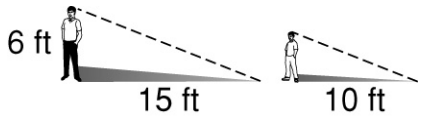
6. A 6-foot-tall adult casts a shadow that is 15 feet long. Estimate the height of a child who casts a 10-foot shadow.



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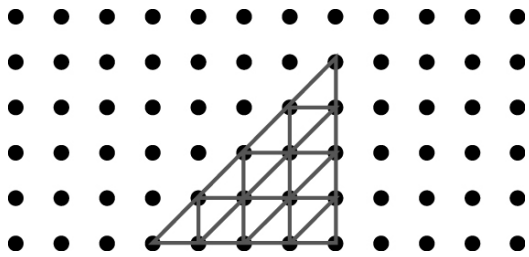
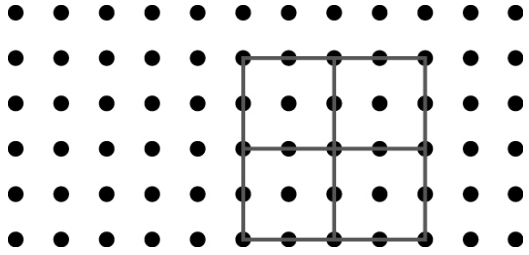
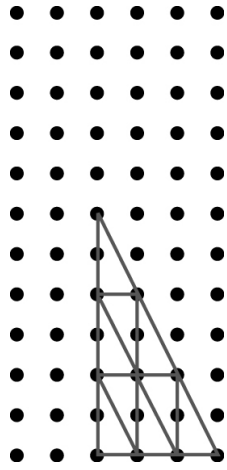
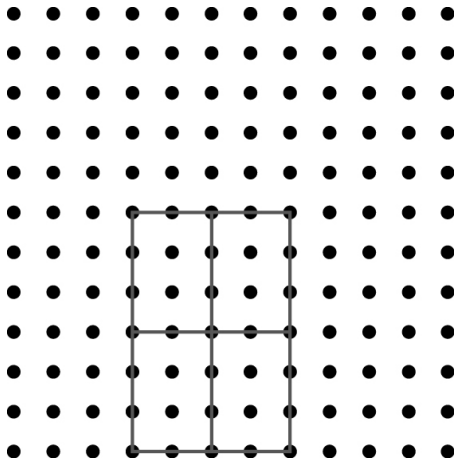
Challenge

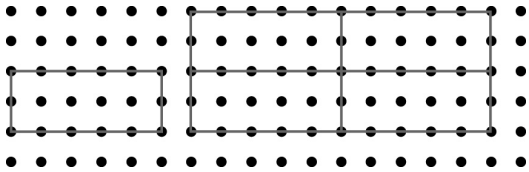
1. 

2. 

3. 

4. 

5. Drawings will vary. Possible drawing given.



Problem Solving

1. The Dance Class
2. yes; 1:4
3. yes; 1:2
4. A
5. H
6. D
7. G

Reading Strategies

1. angle *E*
2. angle *D*
3. side *EF*
4. yes
5. no

Puzzles, Twisters & Teasers

Similar figures:
R and C; A and G; W and O;
Y and E; F and N

T U L I P S

Answers for Lesson 5

Practice A

1. Possible answers are given.
   $\frac{10}{5} = \frac{x}{12}$; $x = 24$ ft
2. $\frac{14}{7} = \frac{x}{4}$; $x = 8$ cm
3. $\frac{12}{16} = \frac{x}{24}$; $x = 18$ in.
4. $\frac{18}{12} = \frac{x}{6}$; $x = 9$ m
5. 10.5 feet
6. 4 feet

Practice B

1. $x = 60$ cm
2. $x = 44°$
3. $x = 21°$
4. $x = 12$ in.
5. 2.8 feet
6. 16.5 feet