NAME _____ DATE _____ PERIOD _____

Test, Form 1A

SCORE _____

Write the letter for the correct answer in the blank at the right of each question.

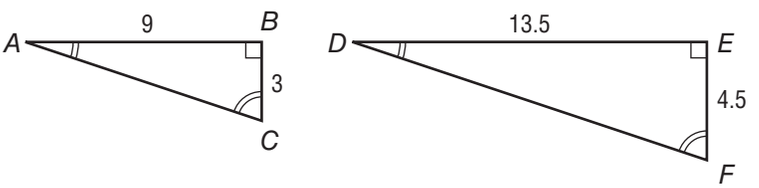
1. A 25,000 gallon swimming pool is being filled. Two hundred and fifty gallons are in it after 30 minutes. How many hours will it take to fill the pool? Use the *draw a diagram* strategy.

A. 200 h **C.** 50 h

B. 100 h **D.** 25 h

1. C

2. The triangles are similar. Which series of transformations maps $\triangle ABC$ onto $\triangle DEF$?



F. translation followed by a rotation

G. translation followed by a dilation

H. rotation followed by a dilation

I. reflection followed by a dilation

2. G

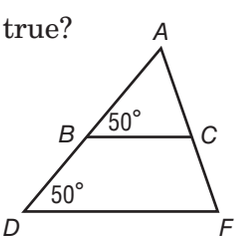
3. The length and width of a rectangle are 5 feet and 2 feet, respectively. A similar rectangle has a width of 8 feet. What is the length of the second rectangle?

A. 8 ft **C.** 16 ft

B. 14 ft **D.** 20 ft

3. D

4. Which statement about the triangles at the right is true?



F. $\triangle ABC$ is not similar to $\triangle ADF$

G. $\triangle ABC$ is similar to $\triangle ADF$

H. $\angle BAC$ is not congruent to $\angle DAF$

I. $\triangle ABC$ is congruent to $\triangle ADF$

4. G

5. Rectangle *DEFG* is similar to rectangle *JKLM*. Rectangle *DEFG* has a length of 5 units and a perimeter of 16 units. Rectangle *JKLM* has a length of 10 units. What is the perimeter of rectangle *JKLM*?

A. 8 units **C.** 32 units

B. 20 units **D.** 64 units

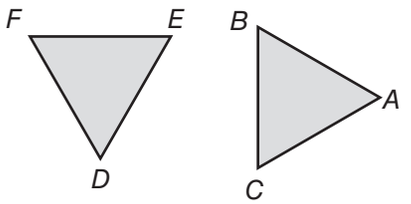
5. C

NAME _____ DATE _____ PERIOD _____

Test, Form 1A *(continued)*

SCORE _____

6. Triangle ABC is congruent to triangle DEF. Which series of transformations maps $\triangle DEF$ onto $\triangle ABC$?



F. rotation followed by a translation
G. translation followed by a dilation
H. rotation followed by a dilation
I. dilation followed by a reflection

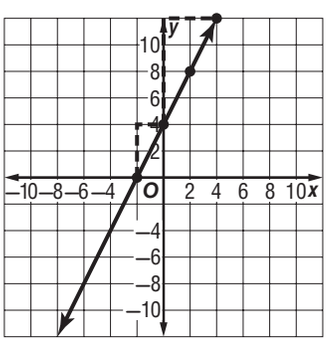
6. F

7. Which of the following statements is *not* true if $\triangle JKL \cong \triangle MNO$?

A. $\angle J \cong \angle M$
B. $\angle L \cong \angle O$
C. $\angle N \cong \angle K$
D. $\angle L \cong \angle N$

7. D

8. Which of the following statements is *not* true about the graph shown?



F. The simplified ratio of the rise to the run of each triangle is 2.
G. The slope of the line is 2.
H. The slope of the line is −2.
I. The smaller triangle and the larger triangle shown are similar.

8. H

9. Which statement is *not* true concerning any non-vertical line on the coordinate plane?

A. All of the slope triangles on the line are similar.
B. The slope is the same between any two distinct points on the line.
C. In the slope triangles, the ratios of the rise to the run are equal to the slope.
D. The slope varies between any two distinct points on the line.

9. D