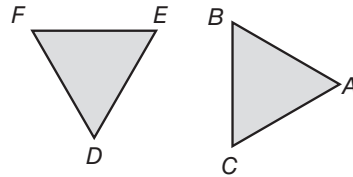


Test, Form 1A (continued)

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

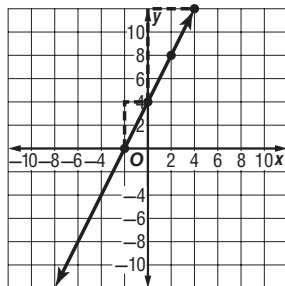
6. _____

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. _____

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. _____

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.

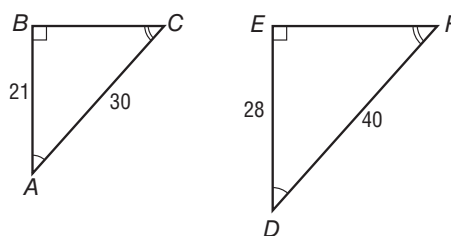
9. _____

Test, Form 1B

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

1. A 72,000 gallon water tower is being drained. Two thousand gallons are drained in the first hour. How many hours will it take to drain the water tower? Use the *draw a diagram* strategy.
- A. 72 h B. 36 h C. 18 h D. 9 h 1. _____

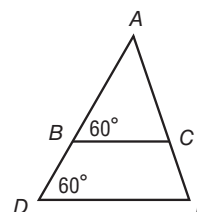
2. The triangles are similar. Which series of transformations maps $\triangle ABC$ onto $\triangle DEF$?



- 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. _____

3. The length and width of a rectangle are 4 feet and 3 feet, respectively. A similar rectangle has a width of 9 feet. What is the length of the second rectangle?
- A. 9 ft C. 14 ft
 B. 12 ft D. 16 ft 3. _____

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

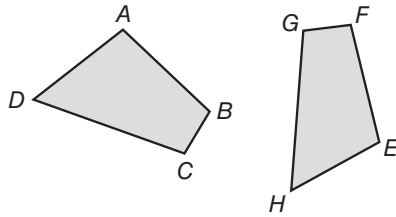


- F. $\triangle ABC$ is similar to $\triangle ADF$
 G. $\triangle ABC$ is not similar to $\triangle ADF$
 H. $\angle BAC$ is not congruent to $\angle DAF$
 I. $\triangle ABC$ is congruent to $\triangle ADF$ 4. _____

5. Rectangle $RSTU$ is similar to rectangle $WXYZ$. Rectangle $RSTU$ has a length of 6 units and a perimeter of 18 units. Rectangle $WXYZ$ has a length of 12 units. What is the perimeter of rectangle $WXYZ$?
- A. 18 units C. 36 units
 B. 24 units D. 72 units 5. _____

Test, Form 1B (continued)

6. The figures below are congruent. Which series of transformations maps figure $ABCD$ onto $EFGH$?



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

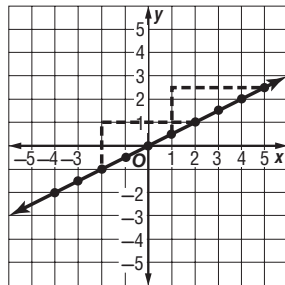
6. _____

7. Which of the following statements is true if $\triangle JKL \cong \triangle MNO$?

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

7. _____

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 $\frac{1}{2}$.
- G. The slope of the line is $\frac{1}{2}$.
- H. The slope of the line is $-\frac{1}{2}$.
- I. The two triangles shown are similar.

8. _____

9. Which statement is true concerning any non-vertical line on the coordinate plane?

- A. All of the slope triangles on the line are congruent.
- 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 absolute value of the y -coordinate.
- D. The slope varies between any two distinct points on the line.

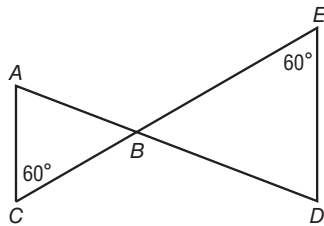
9. _____

Test, Form 2A (continued)

6. The length of a rectangle is 18 centimeters and the width is 6 centimeters. A similar rectangle has a width of 2 centimeters. What is the length of the second rectangle?

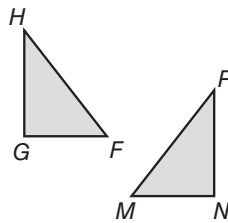
6. _____

7. Determine whether the triangles are similar. If so, write a similarity statement.



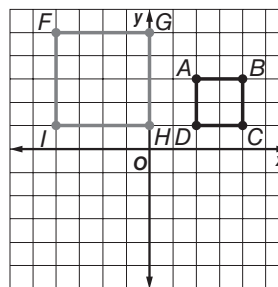
7. _____

8. Determine if the two figures are congruent by using transformations. Explain your reasoning.



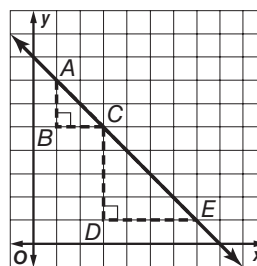
8. _____

9. Determine if the two figures are similar by using transformations. Explain your reasoning.



9. _____

10. Write a proportion comparing the rise to the run for each of the similar slope triangles shown at the right. Then find the numeric value.



10. _____

Test, Form 2B

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

1. A survey of 11 students showed that 8 liked science, 7 liked mathematics, and 4 liked both. How many students just liked science? Use the *draw a diagram* strategy.

- A. 8
B. 7
C. 5
D. 4

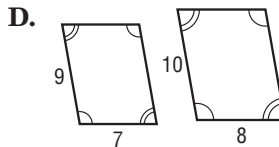
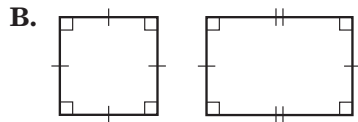
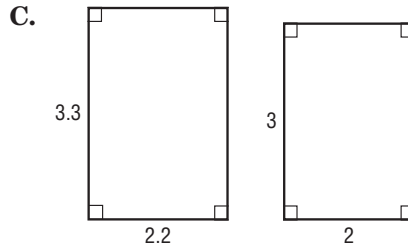
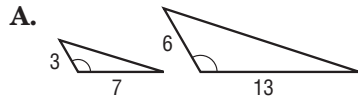
1. _____

2. Selena is painting an image on a piece of art canvas. The image she is reproducing is 4 inches by 6 inches. She enlarges the dimensions 3 times. Which of the following statements is *not* true?

- F. The perimeter of the original image and the perimeter of the new image are related by a scale factor of 3.
G. The perimeter of the original image is $\frac{1}{3}$ the perimeter of the new image.
H. The area of the new image is 3 times the area of the original image.
I. The area of the original image and the area of the new image are related by a scale factor of 9.

2. _____

3. Which pair of polygons is similar?



3. _____

4. Dominic is 72 inches tall and casts a 60 inch shadow. His son, who is standing next to him, casts a 50 inch shadow. How tall is his son?

- F. 41.7 in.
G. 60 in.
H. 68 in.
I. 86.4 in.

4. _____

5. Which of the following statements is *not* true if $\triangle JKL$ is congruent to $\triangle RST$?

- A. $\angle J \cong \angle R$
B. $\angle K \cong \angle T$
C. $\overline{JK} \cong \overline{RS}$
D. $\overline{KL} \cong \overline{ST}$

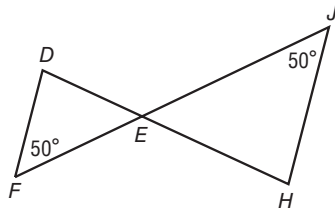
5. _____

Test, Form 2B (continued)

6. The length of a rectangle is 14 centimeters and the width is 5 centimeters. A similar rectangle has a width of 2.5 centimeters. What is the length of the second rectangle?

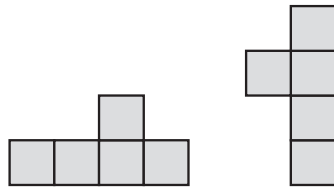
6. _____

7. Determine whether the triangles are similar. If so, write a similarity statement.



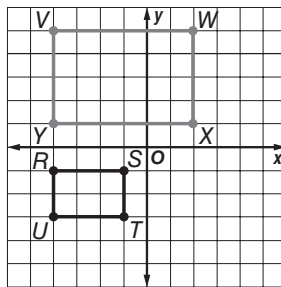
7. _____

8. Determine if the two figures are congruent by using transformations. Explain your reasoning.



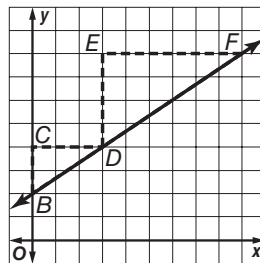
8. _____

9. Determine if the two figures are similar by using transformations. Explain your reasoning.



9. _____

10. Write a proportion comparing the rise to the run for each of the similar slope triangles shown at the right. Then find the numeric value.



10. _____