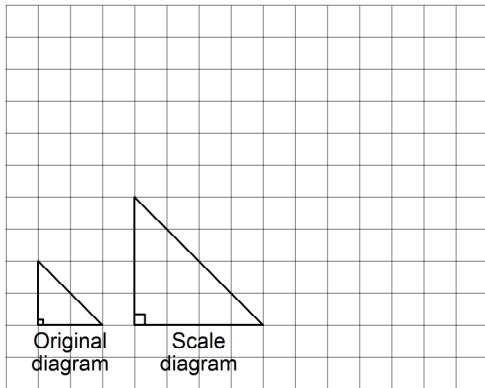


Math 9: Chapter 7 Review

Multiple Choice

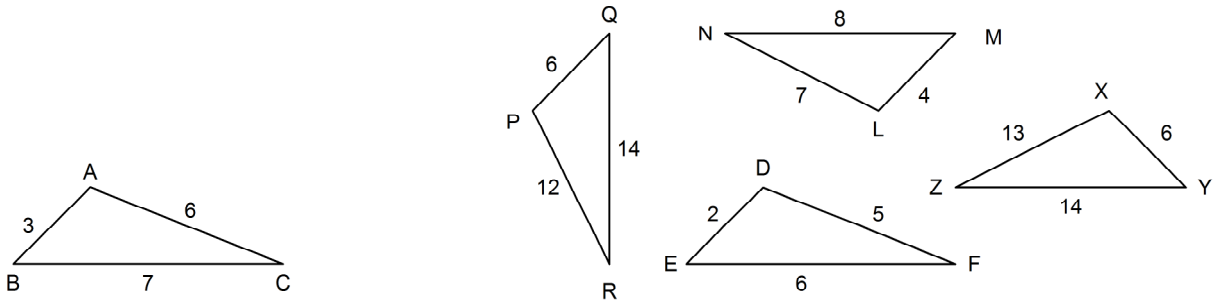
Identify the choice that best completes the statement or answers the question.

- _____ 1. Determine the scale factor for this scale diagram.



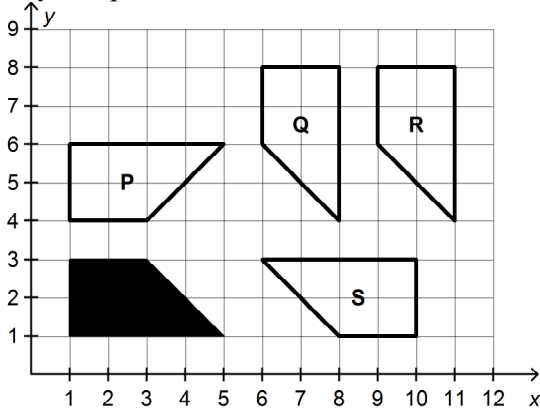
- a. 4 b. 2 c. $\frac{1}{2}$ d. 8
- _____ 2. A square frame is projected onto a screen using an overhead projector. The original square frame has side length 6 cm. The square frame is enlarged by a scale factor of 6.4. Determine the side length of the square frame on the screen.
 a. 76.8 cm b. 38.4 cm c. 12.4 cm d. 153.6 cm
- _____ 3. A circle has diameter 20 cm. The diameter of the reduction is 5 cm. Determine the scale factor.
 a. 4 b. 15 c. $\frac{1}{15}$ d. $\frac{1}{4}$
- _____ 4. Calculate the value of y in this proportion: $\frac{y}{7.2} = \frac{6}{12}$
 a. 1.2 b. 1.1 c. 31.2 d. 3.6

5. Which triangle is similar to $\triangle ABC$?



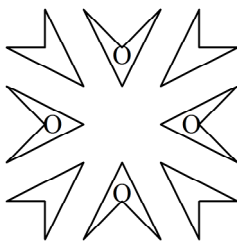
- a. $\triangle LMN$ b. $\triangle XYZ$ c. $\triangle DEF$ d. $\triangle PQR$

6. Identify the quadrilaterals that are related to the black quadrilateral by a line of reflection.



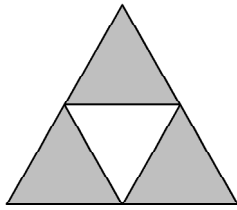
- a. Quadrilaterals P, Q c. Quadrilaterals P, Q, R
 b. Quadrilaterals P, Q, R, S d. Quadrilaterals P, Q, S

7. What is the order of rotational symmetry and angle of rotation symmetry for this design?



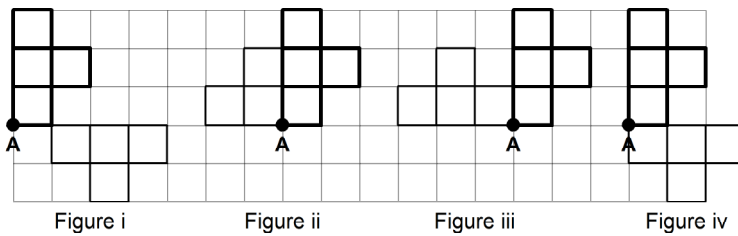
- a. 8; 45° b. 6; 60° c. 2; 180° d. 4; 90°

8. What is the order of rotational symmetry and angle of rotation symmetry for this design?



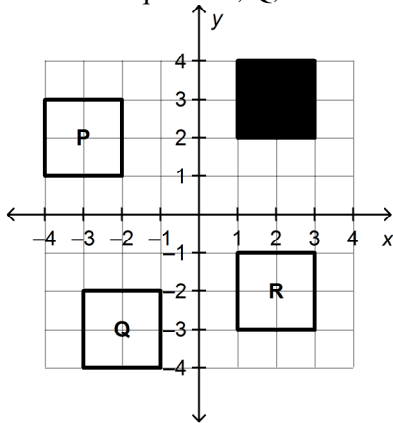
- a. 3; 120° b. 5; 72° c. 4; 90° d. 3; 180°

9. Which figure shows a 90° clockwise rotation about point A?



- a. Figure iii b. Figure ii c. Figure iv d. Figure i

10. Which of squares P, Q, and R are related to the shaded square by rotational symmetry about the origin?

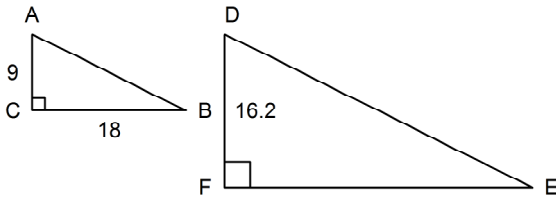


- a. Squares P and R c. Squares Q and R
b. Squares P, Q, and R d. Squares P and Q

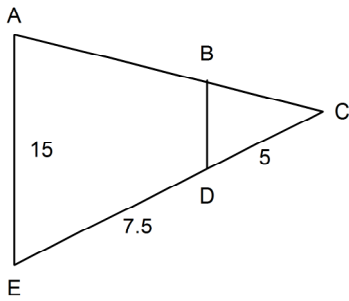
Short Answer

11. A rectangular garden measures 30 m by 18 m.
A similar rectangular garden is 15 m long.
Calculate the width of the garden.

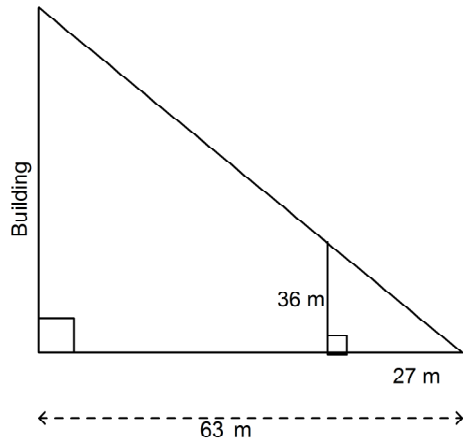
12. Determine the length of EF in these similar triangles.



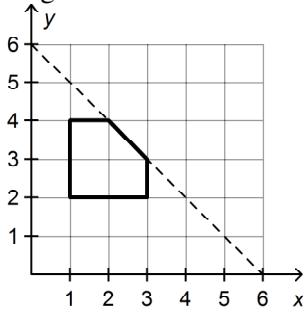
13. Determine the length of BD in these similar triangles.



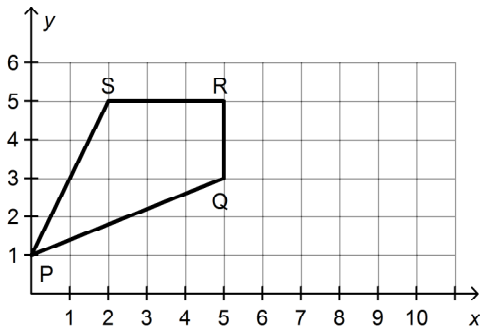
14. This scale diagram shows the measurements a surveyor made to determine the height of a building. What is this height?



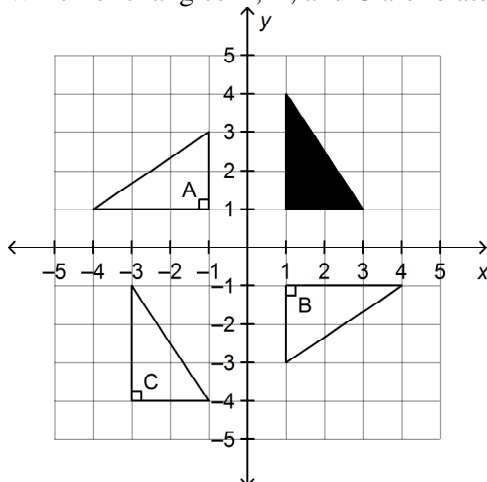
15. This polygon is one-half of a shape. Use the dotted line as a line of symmetry to complete the shape by drawing its other half.



16. This polygon is one-half of a shape. Use a vertical line through 5 on the x -axis as a line of symmetry to complete the shape by drawing its other half. Write the coordinates of the larger shape formed by PQRS and its image.



17. Which of triangles A, B, and C are related to the shaded triangle by rotational symmetry about the origin?



Name: _____

ID: A

Problem

18. Determine the length of HG.

