

TEST NAME: **8.G.1,2,3,4,5 Review**
TEST ID: **1016722**
GRADE: **08 - Eighth Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **Shared Classroom Assessments**

04/15/16, 8.G.1,2,3,4,5 Review

Student: _____

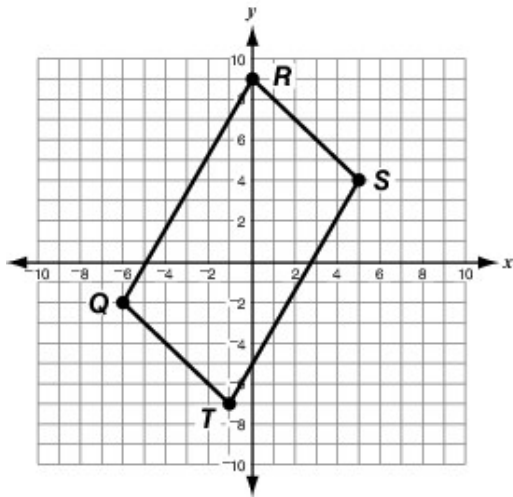
Class: _____

Date: _____

1. Triangle XYZ with vertices $X(5, 7)$, $Y(8, 3)$, and $Z(2, 3)$ is reflected over the y -axis and translated up 4 units to form triangle $X'Y'Z'$. What is the length of segment $Y'Z'$?

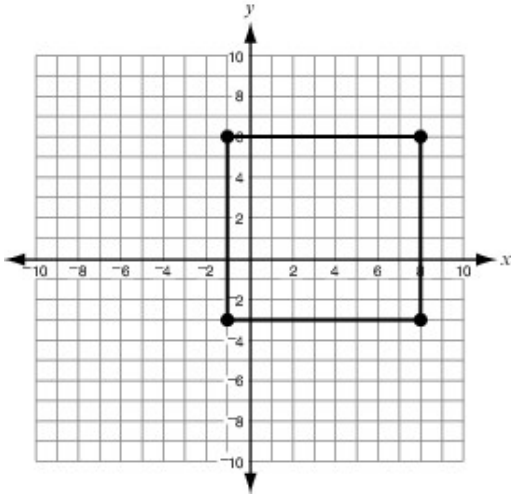
A. 2 units
B. 4 units
C. 6 units
D. 10 units

2. Parallelogram $QRST$, shown below, is rotated 135° clockwise about the point $(5, 4)$ and reflected across the x -axis. Which statement about the resulting figure, $Q'R'S'T'$, is true?



- A. $\overline{R'S'} \nparallel \overline{Q'T'}$ and $\overline{Q'R'} \nparallel \overline{S'T'}$
- B. $\overline{R'S'} \parallel \overline{Q'T'}$ and $\overline{Q'R'} \nparallel \overline{S'T'}$
- C. $\overline{R'S'} \nparallel \overline{Q'T'}$ and $\overline{Q'R'} \parallel \overline{S'T'}$
- D. $\overline{R'S'} \parallel \overline{Q'T'}$ and $\overline{Q'R'} \parallel \overline{S'T'}$

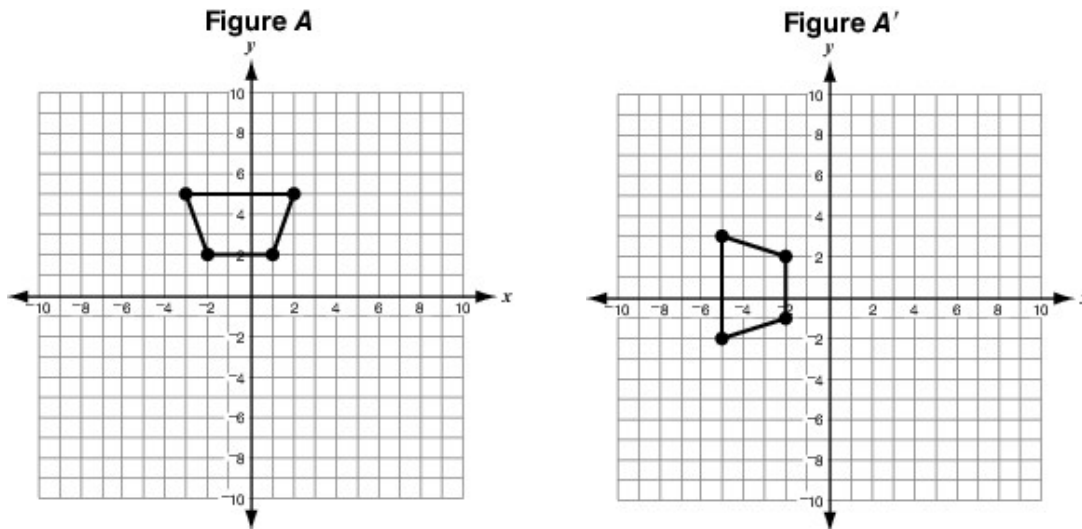
3. The square below is translated to the left and reflected across the y -axis.



Which statement about the resulting figure is true?

- A. It is congruent to the original square.
- B. It is now a rectangle that is not a square.
- C. It is similar but larger than the original square.
- D. It is similar but smaller than the original square.

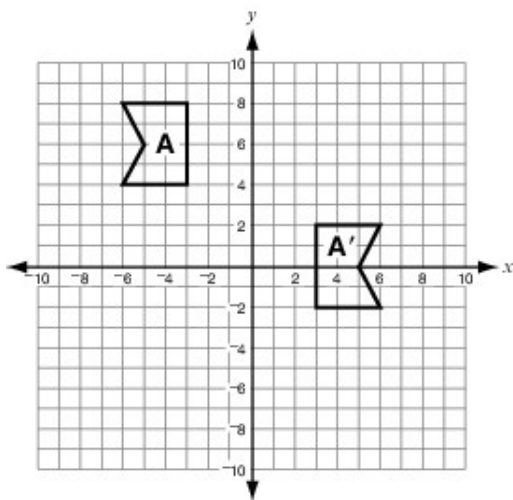
4. The trapezoid in figure A is transformed to trapezoid A' as shown below.



What sequence of transformations will prove them congruent?

- A. Reflection about the y -axis and rotation of 90° counterclockwise about the origin.
 - B. Reflection about the x -axis and rotation of 90° counterclockwise about the origin.
 - C. Reflection about the y -axis and rotation of 180° counterclockwise about the origin.
 - D. Reflection about the x -axis and rotation of 180° counterclockwise about the origin.
5. Which transformation could NOT be used to prove that two circles are congruent to one another?
- A. a dilation with a scale factor of 2
 - B. a dilation with a scale factor of 1
 - C. a reflection
 - D. a rotation

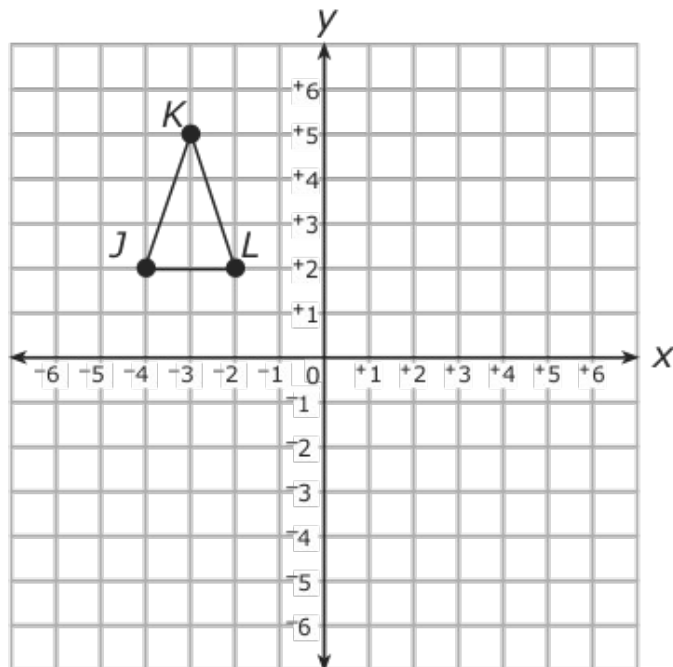
6. Triangle ABC is rotated 95° and then translated 3 units to the left to form triangle DEF . Which statement about the triangles **must** be true?
- Triangle DEF will be larger than triangle ABC .
 - Triangle DEF will be congruent to triangle ABC .
 - Triangle DEF will have an angle that is equal to 95° .
 - Triangle DEF will be similar, but not congruent, to triangle ABC .
7. Which set of transformations could be applied to figure A to prove that it is congruent to figure A' ?



- reflection across the y -axis and translation down 2 units
 - reflection across the y -axis and translation down 6 units
 - rotation of 180° about the origin, followed by a reflection across the x -axis
 - rotation of 90° clockwise about the origin, followed by a reflection across the x -axis
8. Triangle FGH was rotated 90° counterclockwise about the origin. The image has vertices located at $F'(-1, -3)$, $G'(2, -2)$, $H'(2, -4)$. What are the coordinates of F ?
- $(-3, 1)$
 - $(-1, 3)$
 - $(1, -3)$
 - $(3, -1)$

9. Point W is located at $(7, 3)$ on a coordinate plane. Point W is translated 2 units to the left and 3 units up. What are the coordinates of the image point W' ?
- A. $(10, 1)$
 - B. $(9, 0)$
 - C. $(5, 6)$
 - D. $(4, 1)$
10. Triangle EFG has vertices $E(-3, 4)$, $F(-3, -2)$, and $G(5, -2)$. After a dilation is applied, the image triangle $E'F'G'$ has vertices $E'(-9, 12)$, $F'(-9, -6)$, and $G'(15, -6)$. What is the scale factor for the dilation?
- A. 2
 - B. 3
 - C. 4
 - D. 5
11. The vertices of a triangle are located at $(0, 4)$, $(-2, 0)$, and $(1, 0)$. The triangle will be dilated by a scale factor of 0.5. What will be the coordinates of the vertices of the image triangle?
- A. $(0.5, 2)$, $(-1, 0)$, $(0, 0)$
 - B. $(0, 2)$, $(-1, 0)$, $(0.5, 0)$
 - C. $(0, 2)$, $(1, 0)$, $(5, 0)$
 - D. $(0, 8)$, $(-4, 0)$, $(2, 0)$

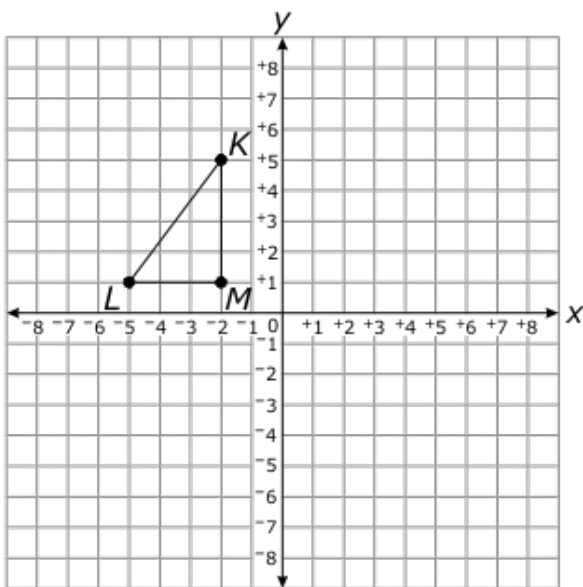
12. Triangle JKL is graphed below.



The triangle will be translated 8 units to the right and 6 units down. What will be the coordinates of the image point J' ?

- A. $(2, -6)$
 - B. $(4, -4)$
 - C. $(6, -4)$
 - D. $(6, -8)$
13. Triangle EFG has vertices at $E(0, 0)$, $F(0, 3)$, and $G(-2, 0)$. The triangle will be rotated 270° counterclockwise about the origin. What will be the coordinates of the triangle $E'F'G'$?
- A. $E'(0, 0)$, $F'(-3, 0)$, $G'(0, -2)$
 - B. $E'(0, 0)$, $F'(3, 0)$, $G'(0, 2)$
 - C. $E'(0, 0)$, $F'(0, 3)$, $G'(2, 0)$
 - D. $E'(0, 0)$, $F'(3, 0)$, $G'(0, -2)$

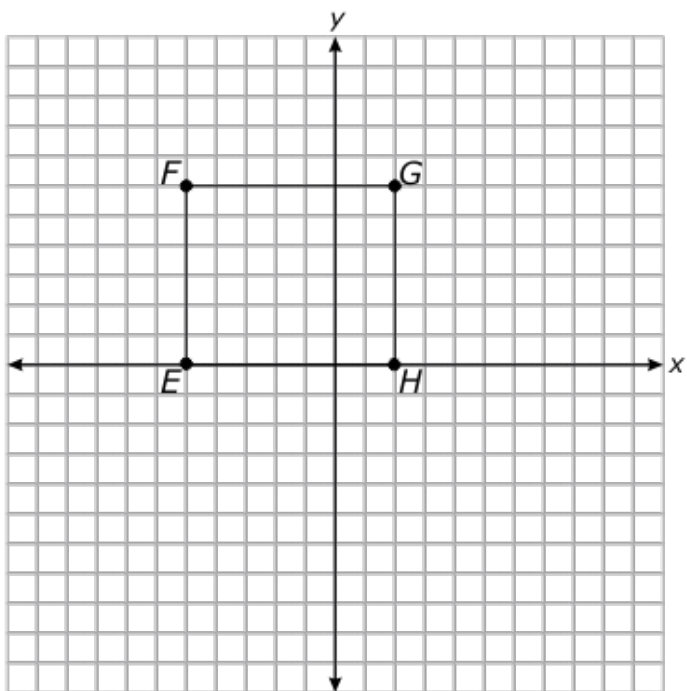
14. Triangle KLM is shown below.



Which type of transformation would result in an image triangle with vertices $K'(5, 2)$, $L'(1, 5)$, and $M'(1, 2)$?

- A. reflection over the y -axis
- B. reflection over the x -axis
- C. rotation
- D. translation

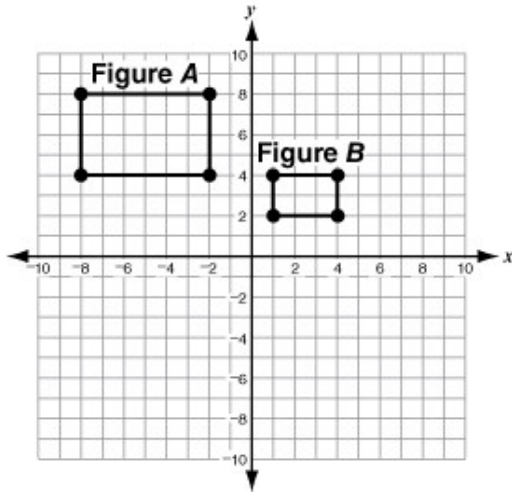
15. Rectangle $EFGH$ will be rotated 90° clockwise about the origin.



What will be the coordinates of the image point G' ?

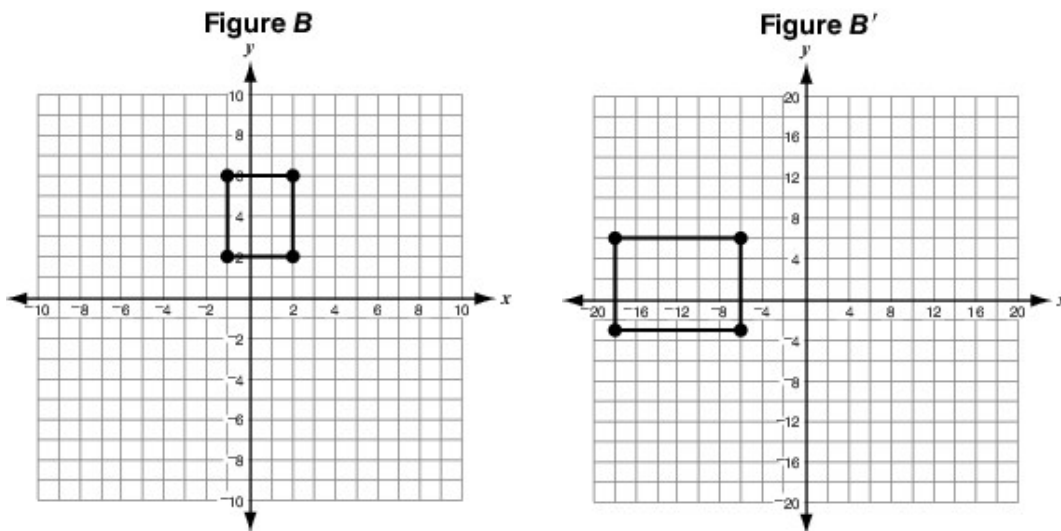
- A. $(-2, -6)$
- B. $(-2, 6)$
- C. $(6, -2)$
- D. $(6, 2)$

16. Which sequence of transformations can be used to prove that the rectangle in figure A is similar to the rectangle in figure B in the coordinate plane below?



- A. dilation by a scale factor of 2 from the origin and translation 4 units to the left
- B. dilation by a scale factor of 2 from the origin and reflection across the y -axis
- C. dilation by a scale factor of 0.5 from the origin and translation 2 units to the right
- D. dilation by a scale factor of 0.5 from the origin and reflection across the y -axis

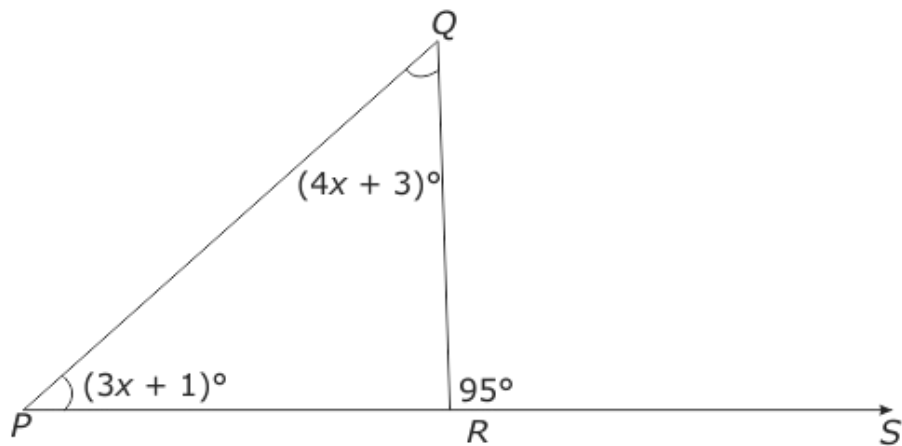
17. A dilation and a rotation of figure B resulted in figure B' shown below.



Which of these statements is **true**?

- A. Figure B' is similar and congruent to figure B .
- B. Figure B' is similar but not congruent to figure B .
- C. Figure B' is congruent but not similar to figure B .
- D. Figure B' is neither similar nor congruent to figure B .

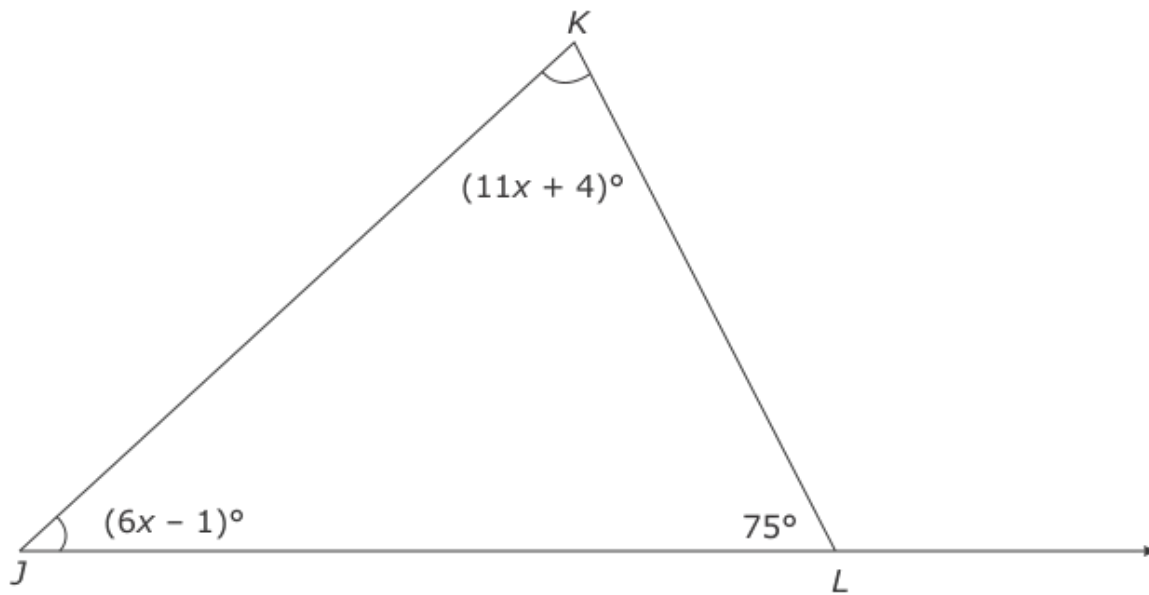
18. Triangle PQR is shown below.



What is the value of x ?

- A. 12
- B. 13
- C. 25
- D. 40

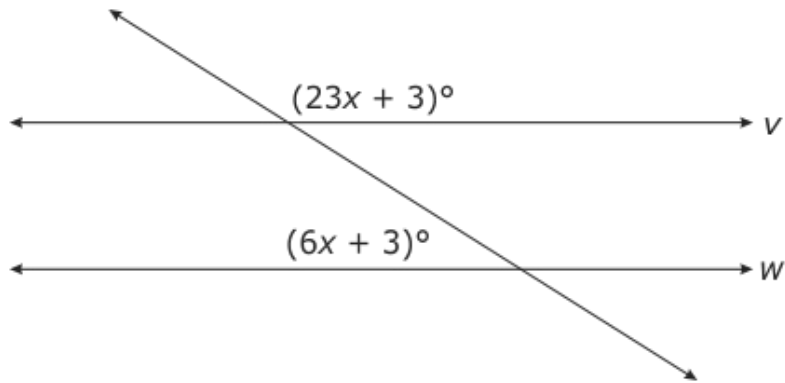
19. Triangle JKL is shown below.



What is the measure of angle KJL ?

- A. 15°
- B. 20°
- C. 35°
- D. 60°

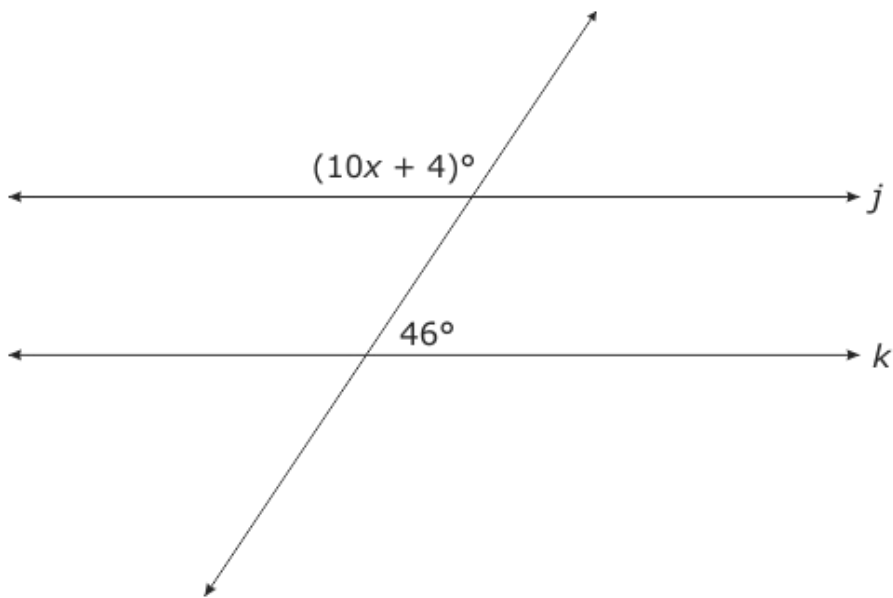
20. Lines v and w are parallel.



What is the value of x ?

- A. 6
- B. 8
- C. 30
- D. 39

21. In the figure below, lines j and k are parallel.



What is the value of x ?

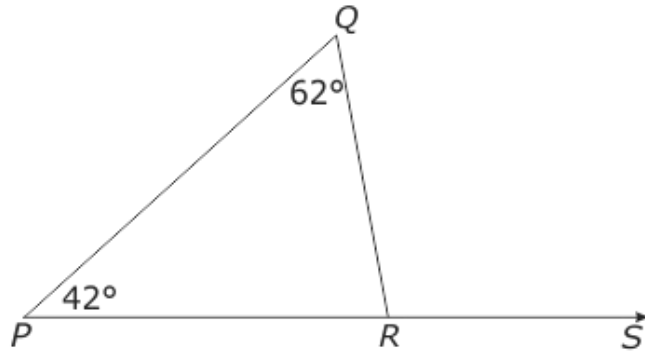
- A. 5
- B. 13
- C. 18
- D. 23

22. In the figure below, what is the measure of $\angle x$?



- A. 80°
- B. 90°
- C. 100°
- D. 110°

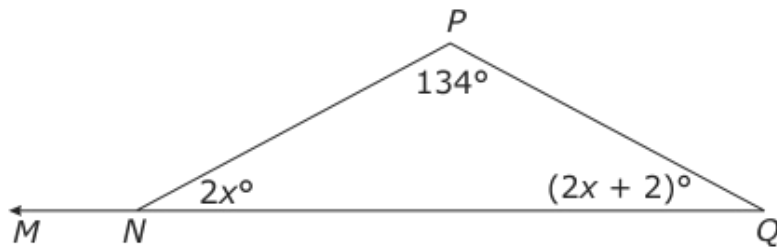
23. Triangle PQR is shown below.



What is the measure of $\angle QRS$?

- A. 76°
- B. 104°
- C. 118°
- D. 138°

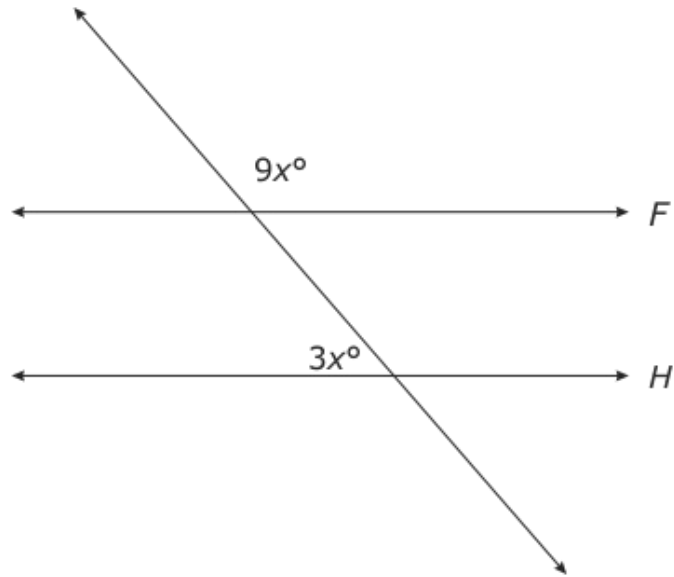
24. Triangle NPQ is shown below.



What is the measure of $\angle NQP$?

- A. 22°
- B. 23°
- C. 24°
- D. 26°

25. Line F is parallel to line H .



What is the value of x ?

- A. 15
- B. 20
- C. 25
- D. 30