Name:_____CLASS WORK

3.8 - Rotational and Reflective Symmetry - CW #:_____

1. What is the minimum number of degrees for a regular decagon to rotate onto itself?

2. What is the minimum number of degrees for a regular hexagon to rotate onto itself?

3. What is the minimum number of degrees for a regular octagon to rotate onto itself?

4. What is the minimum number of degrees for a regular triangle to rotate onto itself?

5. What is the name of regular polygon whose minimum number of degrees to rotate onto itself is 90°?

(1) decagon

(2) quadrilateral

(3) pentagon

(4) 60-sided polygon

(5) I do not know. (Worth $\frac{1}{3}$ points)

6. What is the name of regular polygon whose minimum number of degrees to rotate onto itself is 90°?

(1) quadrilateral

(2) triangle

(3) decagon

(4) pentagon

(5) I do not know. (Worth $\frac{1}{3}$ points)

7. What is the name of regular polygon whose minimum number of degrees to rotate onto itself is 36°?
(1) decagon
(2) pentagon
(3) hexagon
(4) quadrilateral
(5) I do not know. (Worth $\frac{1}{3}$ points)

8. What is the name of regular polygon whose minimum number of degrees to rotate onto itself is 120°?
(1) triangle
(2) hexagon
(3) 36-sided polygon
(4) octagon
(5) I do not know. (Worth $\frac{1}{3}$ points)

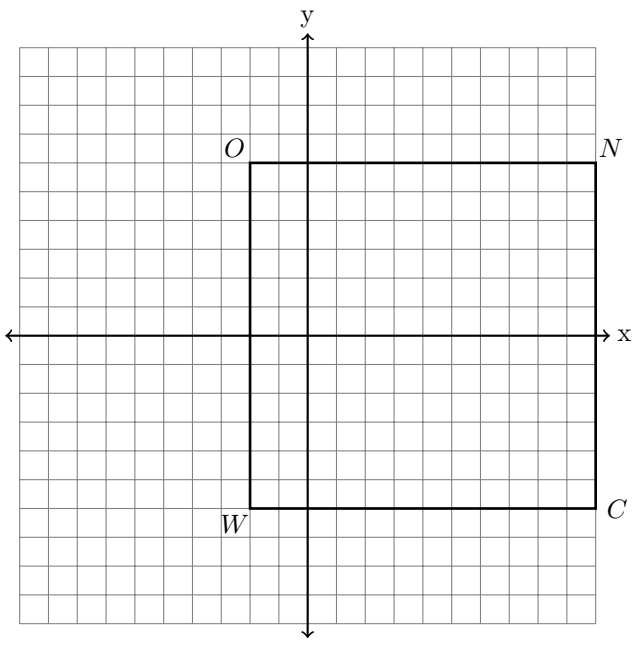
9. Given a regular hexagon, which of the following number of degrees will rotate the regular hexagon onto itself?
(1) 45°
(2) 120°
(3) 36°
(4) 40°
(5) I do not know. (Worth $\frac{1}{3}$ points)

10. Given a regular quadrilateral, which of the following number of degrees will rotate the regular quadrilateral onto itself?
(1) 36°
(2) 60°
(3) 270°
(4) 45°
(5) I do not know. (Worth $\frac{1}{3}$ points)

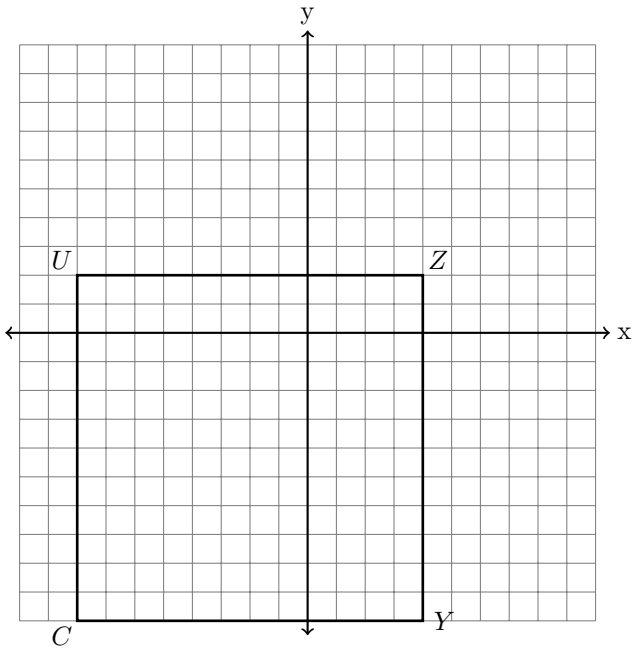
11. Given a regular decagon, which of the following number of degrees will rotate the regular decagon onto itself?
(1) 45°
(2) 90°
(3) 40°
(4) 252°
(5) I do not know. (Worth $\frac{1}{3}$ points)

12. Given a regular triangle, which of the following number of degrees will rotate the regular triangle onto itself?
(1) 36°
(2) 90°
(3) 72°
(4) 240°
(5) I do not know. (Worth $\frac{1}{3}$ points)

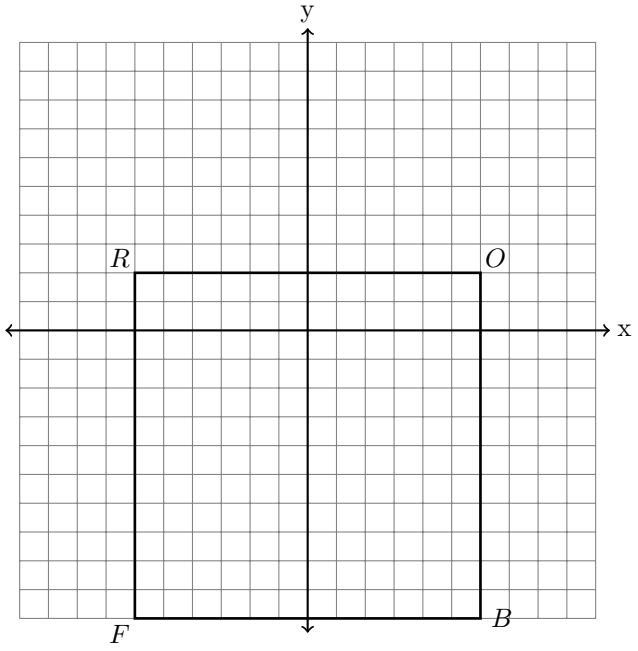
13. Given the diagram below of square $WONC$, name all the lines of reflection that would map the square onto itself.



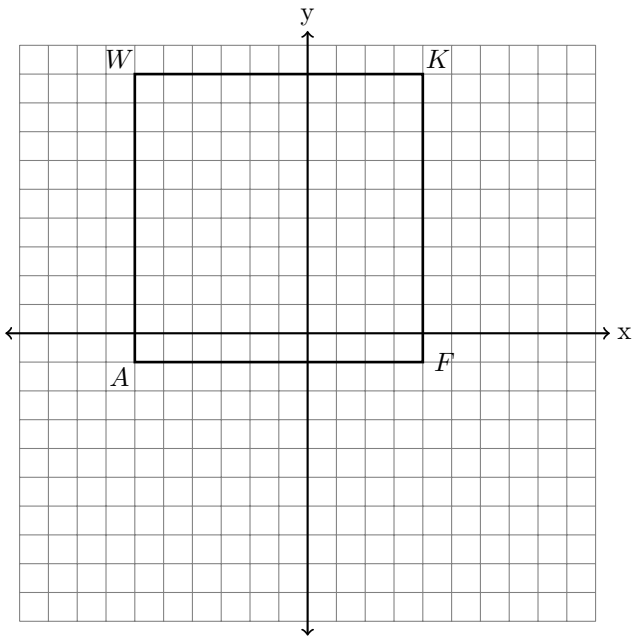
14. Given the diagram below of square $CUZY$, name all the lines of reflection that would map the square onto itself.



15. Given the diagram below of square $FROB$, name all the lines of reflection that would map the square onto itself.



16. Given the diagram below of square $AWKF$, name all the lines of reflection that would map the square onto itself.



17. What is the minimum number of degrees for a regular decagon to rotate onto itself?

18. What is the name of regular polygon whose minimum number of degrees to rotate onto itself is 120°?

(1) hexagon

(2) octagon

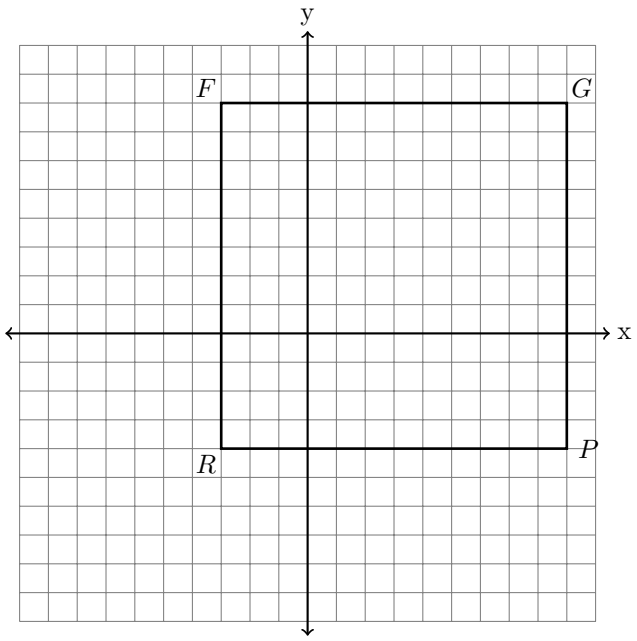
(3) decagon

(4) triangle

(5) I do not know. (Worth $\frac{1}{3}$ points)

19. Given a regular triangle, which of the following number of degrees will rotate the regular triangle onto itself?
(1) 72°
(2) 60°
(3) 240°
(4) 120°
(5) I do not know. (Worth $\frac{1}{3}$ points)

20. Given the diagram below of square $RFGP$, name all the lines of reflection that would map the square onto itself.



Name:_____CLASS WORK
3.8 - Rotational and Reflective Symmetry - CWAnswers #:_____

1. 36°

2. 60°

3. 45°

4. 120°

5. Choice 2: quadrilateral

6. Choice 1: quadrilateral

7. Choice 1: decagon

8. Choice 1: triangle

9. Choice 2: 120°

10. Choice 3: 270°

11. Choice 4: 252°

12. Choice 4: 240°

13. $x = 4$, $y = 0$, $y = x - 4$, and $y = -x + 4$
14. $x = -2$, $y = -4$, $y = x - 2$, and $y = -x - 6$
15. $x = 0$, $y = -4$, $y = x - 4$, and $y = -x - 4$
16. $x = -1$, $y = 4$, $y = x + 5$, and $y = -x + 3$
17. 36°

18. Choice 4: triangle

19. Choice 3: 240°

20. $x = 3$, $y = 2$, $y = x - 1$, and $y = -x + 5$