

Warm Up 76

1. translation
2. translation 5 left and 3 up
3. A

Lesson Practice 76

- a. Yes, it has five lines of symmetry.
- b. 5; 72°
- c. Yes; the triangle would have a line of symmetry on the x -axis.
- d. A 50-sided polygon would have 50 lines of symmetry.

Practice 76

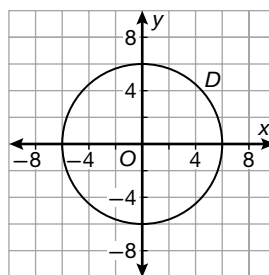
- approximately $\frac{1}{10}$ or 0.1
- Rotational symmetry in regular polygons resembles lines of symmetry: the order is equal to the number of sides in the polygon.

Regular Polygon	Order of Rotational Symmetry
Triangle	3
Quadrilateral	4
Pentagon	5
Hexagon	6
Heptagon	7
Octagon	8
Nonagon	9
Decagon	10

3. $J''(-2, 3)$; $K''(-2, 5)$;
 $L''(-4, 4)$

4. B

5.



- $QS = 11.3$ ft
- The longer diagonal.
- If $LM = LN$, then $m\angle N = m\angle M$ by the Isosceles Triangle Theorem. That expression contradicts the given information, so $LM \neq LN$.
- There is no rotational symmetry in this symbol because when you rotate it 180° , the blue and white sides have switched.
- 4 feet per second
- 100 cm^2
- area of one triangle = $\frac{1}{2}as$; area of six triangles = $6\left(\frac{1}{2}as\right) = 3as$

13. Angle-Angle Similarity Postulate
14. yes, $x = 0$
15. $x = 26$; $y = 16$
16. A
17. Equation of $\odot C$ is
 $(x - 1)^2 + (y - 1)^2 = 25$; $(6 - 1)^2 + (1 - 1)^2 = 5^2 + 0^2 = 25$; $(4 - 1)^2 + (5 - 1)^2 = 3^2 + 4^2 = 25$
18. $z = 2$
19. 1505 cm^2
20. 522 meters
21. no; yes, 90° , order 4; no
22. $E = (3, 0)$
23. $GE = 16$, $GF = 15$,
 $m\angle DFG = 65^\circ$,
and $m\angle GDE = 130^\circ$
24. B
25. Sample: Since tangent is equal to $\frac{\sin}{\cos}$, and $\cos 90^\circ$ is 0, the denominator of tangent is 0 at 90° . Another degree measure for which the tangent is undefined is 270° .
26. $y = 3.2$
27. 0.24 km
28. $(-2, -2)$
29. No; Magnitude is an absolute value, so it is impossible for magnitude to have an opposite value.
- 30.

