

Warm Up 56

1. equiangular, equilateral
2. 12 cm
3. B

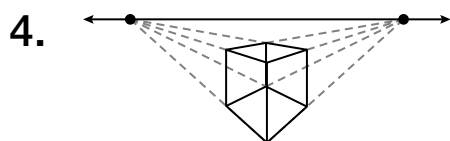
Lesson Practice 56

- a. $x = \frac{7\sqrt{3}}{3}; y = \frac{14\sqrt{3}}{3}$
- b. $3\sqrt{3} + 3$
- c. $49\sqrt{3} \text{ in}^2$
- d. $36\sqrt{3} \text{ cm}^2$

Practice 56

- 130°
- A rhombus is defined by having four congruent sides. A square always has four congruent sides. Therefore, a square is always a rhombus.

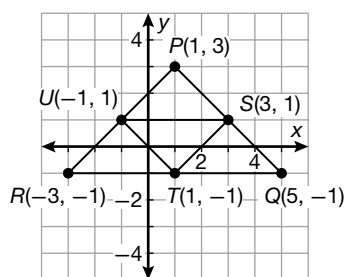
3. 8 cm



5. B

6. 8

7.



8. 121°

9. D

10. 1800°

11. $\angle HJG \cong \angle LJK$ by the Vertical Angles Theorem, $\frac{4}{12} = \frac{3}{9}$, so $\triangle HGJ \sim \triangle LKJ$ by SAS Similarity

12. 2.8

13. $\frac{15\sqrt{2}}{2}$ mi14. a. $\overline{DE} \cong \overline{EF}$

b. 10.5 mm

15. No, because Q could also have any coordinates of length RP except $(2, -6)$ or $(-2, 6)$.

16. 0.7 miles

17. a. acute

b. $0 < 2(67 - 3y) < 90$;
 $7.\overline{3} < y < 22.\overline{3}$

18.

19. $V(3.5, 3.5)$; $W(2, -1.5)$

20. $\frac{15}{2}$ ft and $\frac{15\sqrt{3}}{2}$ ft
21. $\frac{m}{360^\circ}(2\pi r)$ and $\frac{m}{360^\circ}(\pi r^2)$;
because the coefficient represents the fraction of the circle the arc or sector covers
22. No, it is not. There is no 90° angle, so it cannot be a 30° - 60° - 90° triangle.
23. It is isosceles with the two sides adjacent to the bisected angle congruent.
24. a. Plant *A* grows taller than plant *B*.
b. See student work;
Sample:
Plant *B* could be slower-growing than plant *A* but ultimately taller.
25. $x = -6$; $DE = 13$;
 $BC = 26$
26. $y = -\frac{1}{m}x + c$
27. triangle; acute
28. a. They are similar in shape.
b. 108:1
29. r and $r\sqrt{3}$
30. a. 53°
b. 53°