

Warm Up 81

1. Perpendicular lines
2. $y = 2x + 3$
3. $2\sqrt{2}$

Lesson Practice 81

- a. (24, 8)
- b. $\left(-\frac{30}{7}, -\frac{1}{7}\right)$
- c. (1, 7)
- d. The lines are parallel.
Each has a slope of -2 ; so therefore, there is no solution.
- e. \$68; 24 units

Practice 81

1. Because $m\angle UZY = \frac{1}{2}(m\widehat{UY} + m\widehat{VX})$ and $m\angle VWX = \frac{1}{2}(m\widehat{UY} - m\widehat{VX})$.

Since $m\widehat{VX} > 0$, $m\angle UZY > m\angle VWX$

2. $(\frac{15}{13}, \frac{23}{13})$

3. a. converse only

p	q	Statement: If p , then q	Converse: If q , then p
T	F	F	T

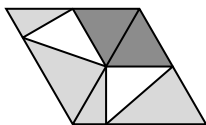
- b. No, because the original statement is not true.

4. $x = 10$; $y = 8$

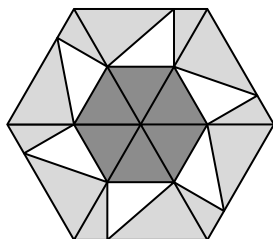
5. B

6. 3 cm

7. a.



b.



- c. rotational symmetry of order 6

8. yes; $A = hm$

9. $14\pi \text{ cm}^3$

10. 5575 in^3

11. $JK \approx 8.7 \text{ cm}$, $JL = 10 \text{ cm}$

12. 2 toppings; \$9

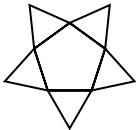
13. Yes, since an equilateral triangle has three congruent sides, it has at least two congruent sides; No, because some isosceles triangles have only two congruent sides.

14. 232 in^2

15. 28°

16. 5

17. at the vertex of the right angle

18. D
19. $b = \frac{5}{3}$
20. 36
21. The surface area is the number of square units it would take to cover, or wrap, the sphere. The volume is the number of cubic units it would take to fill the sphere.
22. $x > 10$
23. 
24. 4.24
25. Hector forgot to multiply the negative sign through the second equation. He left -3 as -3 instead of changing it to $+3$. The correct solution is $\left(-\frac{8}{7}, -\frac{13}{7}\right)$.
26. $(-6, -1); (-6, -3); (-2, -3)$
27. Since $\angle B$ and $\angle E$ are right angles, $\triangle ABC$ and $\triangle DEF$ are right triangles; therefore, since $\overline{BC} \cong \overline{EF}$, by HL Congruence Theorem, $\triangle ABC \cong \triangle DEF$.
28. 1437 m^2
29. 270° ; The blades divide the circle into 4 angles, each measuring 90° . Because the blade moves 3 places counterclockwise, the angle of rotation is 90° times 3.
30. between 8 cm and 36 cm