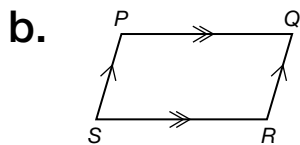


**Warm Up 19**

1. regular
2. quadrilateral
3. rectangle
4. D

**Lesson Practice 19**

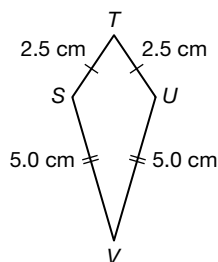
- a. rhombus, parallelogram



- c. 150 m;  $1250 \text{ m}^2$
- d. 17.2 cm;  $18.49 \text{ cm}^2$

## Practice 19

1.



2. A

3. For a pair of lines cut by a transversal, if alternate exterior angles are not congruent, then the lines are not parallel.

4.  $570 \text{ cm}^2$ 5.  $-1$ 


6. This is a list of prime numbers in order, so the missing value is 29.

7.  $x = 34$ 

8. the line itself

9.  $\overline{SU}$ ,  $\overline{SV}$ , or  $\overline{TV}$ ; concave10.  $69^\circ$ 

11. rectangle

12.  5-5-3 triangle

13. hypothesis: you have the blood type O;  
conclusion: you are the universal donor

14. Parallel Postulate

15.  $(-5, -1.5)$ 

16. "If an animal is not warm-blooded, then it is not a mammal".

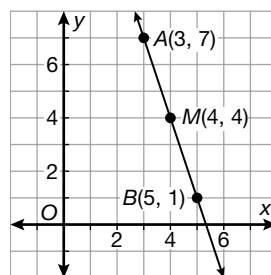
17. Sample:  $M$  lies on line  $AB$  because the slope from  $A$  to  $M$  is the same as the slope from  $M$  to  $B$ ;

$$AM = \sqrt{(4 - 3)^2 + (4 - 7)^2}$$

$$= \sqrt{10};$$

$$BM = \sqrt{(4 - 5)^2 + (4 - 1)^2}$$

$$= \sqrt{10}$$

18.  $2x^2$

19. a.  $160 \text{ ft}^2$   
b.  $390 \text{ ft}^2$   
c. Sample:  $390 - 12$   
(door)  $- 12$   
(window) or  $366 \text{ ft}^2$
20. Yes; products are 1295, 1680, 1650, which are all different; Any two data pairs give a counterexample.
21. They are congruent.
22. parallelogram
23.  $(0, 0)$
24. While it is true that all the geese in the study flew south for the winter, it cannot be concluded that all geese fly south because there are geese that were not observed.
25.  $AB = 2.24$ ;  
 $CD = 2.24$ ;  
 $\overline{AB} \cong \overline{CD}$
26. Symmetric Property of Congruence
27. Same-side interior pairs are  $\angle 2$  and  $\angle 5$ , and  $\angle 3$  and  $\angle 8$ . Since  $m$  and  $n$  are parallel,  $\angle 2$  and  $\angle 5$  are supplementary angles; since  $\angle 1$  and  $\angle 2$  are also supplementary angles,  $\angle 1 \cong \angle 5$ ; similar argument if  $\angle 3$  and  $\angle 8$  are supplementary,  $\angle 4 \cong \angle 8$ .
28.  $y = -\frac{1}{2}(x - 3)$  or  
 $y + 1 = -\frac{1}{2}(x - 5)$  or  
 $y = -\frac{1}{2}x + \frac{3}{2}$
29.  $118^\circ$
30. Shen is correct as two angles whose measures add to  $180^\circ$  are supplementary.