Special Parallelograms
Worksheet

Name_____

For 1-8, complete the following charts by putting checks in the boxes that are true.

	4 Sides	Opp. Sides ||	Opp. Sides ≅	All Sides ≅	Opp. Angles ≅	All Angles ≅
1. Parallelogram						
2. Rectangle						
3. Rhombus						
4. Square						

| The diagonals ….	bisect each other	are congruent	bisect opposite angles	are perpendicular
5. Parallelogram				
6. Rectangle				
7. Rhombus				
8. Square				

For 9-17, determine if the statement is true or false.

_____9. All quadrilaterals are parallelograms.

_____10. All parallelograms are quadrilaterals.

_____11. A square is a parallelogram.

_____12. A parallelogram with a right angle is a square.

_____13. All rectangles are parallelograms.

_____14. All rhombuses are squares.

_____15. All squares are rectangles.

_____16. A parallelogram with four congruent sides is a square.

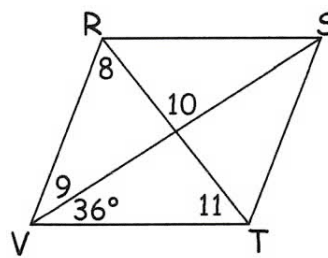_____17. A parallelogram with perpendicular diagonals is a square.

For 18-21, find the measure of the numbered angles in the figures.

m∠1 = _____
m∠2 = _____
m∠3 = _____
m∠4 = _____
m∠5 = _____
m∠6 = _____
m∠7 = _____
m∠8 = _____
m∠9 = _____
m∠10 = _____
m∠11 = _____
m∠12 = _____
m∠13 = _____
m∠14 = _____

18. ABCD is *rectangle*
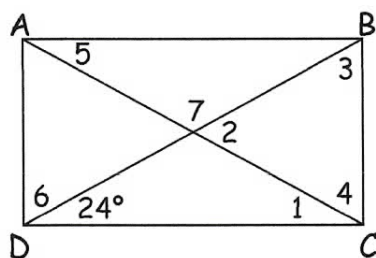
19. RSTV is a *rhombus*

20. EFGH is a *square*
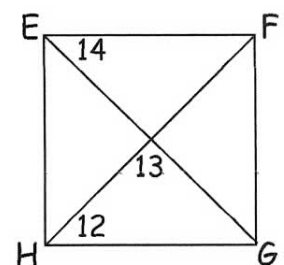
21. ABCD is a *rectangle*

m∠1 = _____
m∠2 = _____
m∠3 = _____
m∠4 = _____
m∠5 = _____
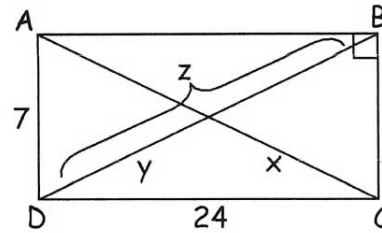m∠6 = _____
m∠7 = _____
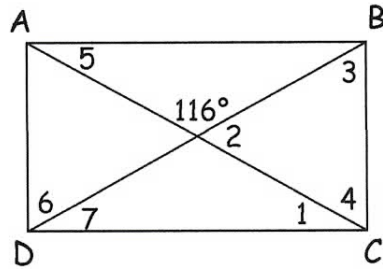
For 22-23, for the following parallelograms,(a) choose the best name, (b) find the value of each variable.
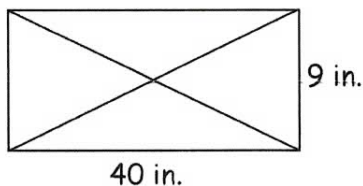
22.
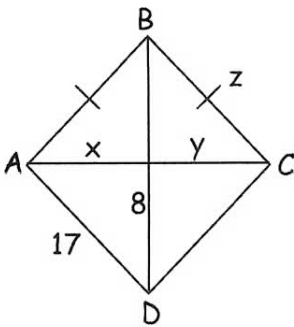
23.

24. In quadrilateral MATH, $\overline{MT}$ and $\overline{AH}$ bisect each other at R and $\overline{MR} \cong \overline{HR}$.
     MATH must be a   I.   parallelogram
                     II.   rectangle
                     III. square

     A. I only   B. II only   C. I and II   D. II and III   E. I, II and III

25. Cindy is making the design shown below with silver wire. It consists of a rectangle and its two diagonals. How much wire does she need to make this design?

9 in.

40 in.

Quadrilateral 5 Worksheet Key

	4 Sides	Opp. Sides ‖	Opp. Sides ≅	All Sides ≅	Opp. Angles ≅	All Angles ≅
1. Parallelogram	√	√	√		√	
2. Rectangle	√	√	√		√	√
3. Rhombus	√	√	√	√	√	
4. Square	√	√	√	√	√	√

The diagonals ….	bisect each other	are congruent	bisect opposite angles	are perpendicular
5. Parallelogram	√			
6. Rectangle	√	√		
7. Rhombus	√		√	√
8. Square	√	√	√	√

9. F   10. T   11. T   12. F

13. T   14. F   15. T   16. 17

18. m∠1 = 24°, m∠2 = 48°, m∠3 = 66°, m∠4 = 66°, m∠5 = 24°, m∠6 = 66°, m∠7 = 132°

19. m∠8 = 54°, m∠9 = 36°, m∠10 = 90, m∠11 = 54°

20. m∠12 = 45°, m∠13 = 90°, m∠14 = 45°

21. m∠1 = 32°, m∠2 = 64°, m∠3 = 58°, m∠4 = 58°, m∠5 = 32°, m∠6 = 58°, m∠7 = 32°

22. rhombus, x = y = 15, z = 17

23. rectangle, x = y = 12.5, z = 25

24. C   25. 180 in