Ch 7 Problems Worksheet **Name:** _____

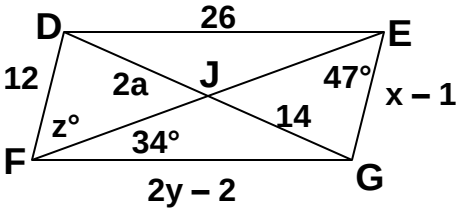
Characteristic (85 checks only)	Polygon	Quadrilateral	Parallelogram	Rhombus	Rectangle	Square	Kite	Trapezoid	Isosceles Trapezoid
Opposite sides parallel & congruent									
Opposite angles congruent									
Consecutive angles supplementary									
Diagonals bisect each other									
Bases Parallel									
Legs are not Parallel									
Leg angles are supplementary									
Median is parallel to bases									
Median = ½ (base + base)									
All 4 sides congruent									
Diagonals perpendicular									
Diagonals bisect opposite angles									
Four Angles all 90°									
Diagonals congruent									
Diagonals divide into 4 $\triangle$s $\cong$									
Legs are congruent									
Base angle pairs congruent									
4 sides									
4 Interior angles that sum to 360°									
4 exterior angles that sum to 360°									
Closed figure									
Line segments for sides									

1. **The sum of the measures of interior angles, S = _____**
2. **The sum of the measures of the exterior angles is _____**
3. **To find the number of sides, you divide 360 by the _____ angle.**
4. **The interior angle plus the exterior angle equal _____**
5. **Match the following;**

Regular	**All sides not equal; all angles not equal**
Irregular	**All sides equal; all angles equal**

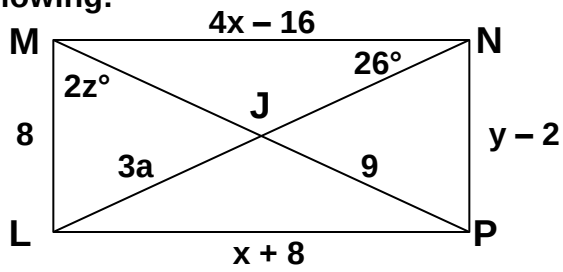
In the *parallelogram* state the equation and solve for the following:

6. x = _____
7. y = _____
8. z = _____°
9. a = _____
10. ∠EGF= _____°



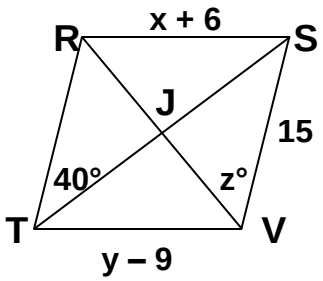
In the *rectangle* state the equation and solve for the following:

11. x = _____
12. y = _____
13. z = _____°
14. a = _____
15. ∠MJN = _____°



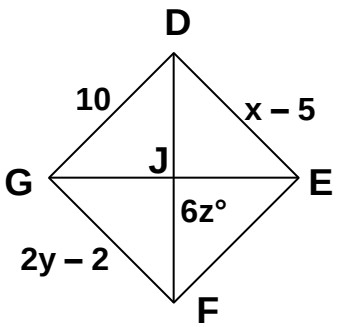
In the *rhombus* state the equation and solve for the following:

16. x = _____
17. y = _____
18. z = _____°
19. JV = _____ if SJ = 12
20. ∠RSJ= _____°



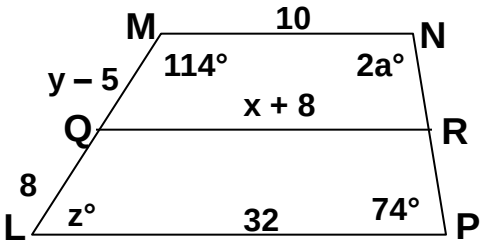
In the *square* state the equation and solve for the following:

21. x = _____
22. y = _____
23. z = _____°
24. DJ = _____
25. ∠JEF = _____°



In the *trapezoid* state the equation and solve for the following:

26. x = _____
27. y = _____
28. z = _____
29. a = _____
30. NR = _____ if NP = 12



QR is a *median* in both trapezoids

In the *isosceles trapezoid* state the equation and solve for the following:

31. x = _____
32. y = _____
33. z = _____°
34. a = _____°
35. EG = _____ if DF = 30