

Lesson 1.4 • Polygons

Name _____ Period _____ Date _____

For Exercises 1–8, complete the table.

Polygon name	Number of sides	Number of diagonals
1. Triangle		
2.		2
3.	5	
4. Hexagon		
5. Heptagon		
6.	8	
7.		35
8.	12	

For Exercises 9 and 10, sketch and label each figure. Mark the congruences.

9. Concave pentagon *PENTA*, with external diagonal \overline{ET} , and $\overline{TA} \cong \overline{PE}$.
10. Equilateral quadrilateral *QUAD*, with $\angle Q \cong \angle U$.

For Exercises 11–14, sketch and use hexagon *ABCDEF*.

- Name the diagonals from *A*.
- Name a pair of consecutive sides.
- Name a pair of consecutive angles.
- Name a pair of non-intersecting diagonals.

For Exercises 15–18, use the figures at right.

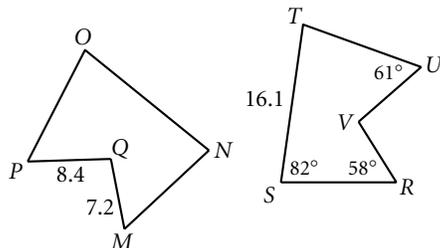
$$MNOPQ \cong RSTUV$$

15. $m\angle N = \underline{\hspace{2cm}}$

16. $VR = \underline{\hspace{2cm}}$

17. $m\angle P = \underline{\hspace{2cm}}$

18. $ON = \underline{\hspace{2cm}}$



19. The perimeter of a regular pentagon is 31 cm. Find the length of each side.