

Written Exercises

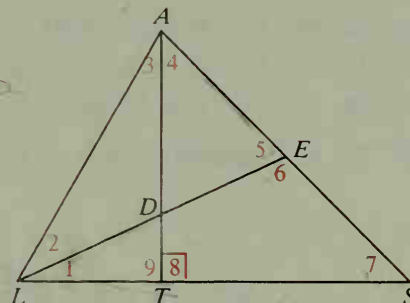
- A** 1. Name the vertex and the sides of $\angle 5$.
 2. Name all angles adjacent to $\angle ADE$.

State another name for the angle.

3. $\angle 1$ $\angle DLT$ 4. $\angle 3$ 5. $\angle 5$ $\angle AED$
 6. $\angle ALD$ 7. $\angle AST$ 8. $\angle LES$

State whether the angle appears to be acute, right, obtuse, or straight.

9. $\angle 2$ 10. $\angle LAS$ 11. $\angle ATL$
 12. $\angle S$ 13. $\angle LTS$ 14. $\angle EDT$



Exs. 1-18

Complete.

15. $m\angle 3 + m\angle 4 = m\angle$ $\angle ALS$ 16. $m\angle ALS - m\angle 2 = m\angle$ $\angle ELT$
 17. If $m\angle 1 = m\angle 2$, then \angle $\angle ALS$ bisects \angle $\angle ALS$ 18. $m\angle LDA + m\angle ADE = m\angle$ $\angle ADE$

Without measuring, sketch each angle. Then use a protractor to check your accuracy.

19. 90° angle 20. 45° angle 21. 150° angle 22. 10° angle

Draw a line, \overleftrightarrow{AB} . Choose a point O between A and B . Use a protractor to investigate the following questions.

23. In the plane represented by your paper, how many lines can you draw through O that will form a 30° angle with \overrightarrow{OB} ?
 24. In the plane represented by your paper, how many lines can you draw through O that will form a 90° angle with \overrightarrow{OB} ?

- B** 25. Using a ruler, draw a large triangle. Then use a protractor to find the approximate measure of each angle and compute the sum of the three measures. Repeat this exercise for a triangle with a different shape. Did you get the same result?

26. Find $m\angle 2$, $m\angle 3$, and $m\angle 4$ when the measure of $\angle 1$ is:

a. 90 $m\angle 2 = 90$ b. 93 $m\angle 2 = 87$ $m\angle 3 = 93$ $m\angle 4 = 87$

27. Express $m\angle 2$, $m\angle 3$, and $m\angle 4$ in terms of t when $m\angle 1 = t$.

$m\angle 2 = 180 - t$, $m\angle 3 = t$, $m\angle 4 = t$

28. A careless person wrote, using the figure shown,

$$m\angle AOB + m\angle BOC = m\angle AOC.$$

What part of the Angle Addition Postulate did that person overlook?

