Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| **Side-Splitter Theorem** | If a line is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to one side of a triangle and intersects the other \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, then it divides those sides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| **Problem 1** | What is the value of *x*? |
| **Corollary to the Side-Splitter Theorem** | If \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lines intersect \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, then the segments intercepted on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| **Problem 2** | Find the value of x. |
| **Triangle-Angle-Bisector Theorem** | If a \_\_\_\_\_\_\_\_ bisects an \_\_\_\_\_\_\_\_\_\_\_\_ of a triangle, then it divides the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ into \_\_\_\_\_\_\_\_\_\_ segments that are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the other \_\_\_\_\_\_\_\_ sides of the triangle. |
| **Problem 3** | What is the value of x? |
| **Problem 4** | Find the value of x. |

APPLICATION

****Solve for the variables.

**1. 2.**

****

**3. 4.**