

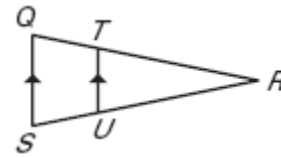
# 6-6: Use Proportionality Theorems

## WORKSHEET

Name: \_\_\_\_\_

### Triangle Proportionality Theorem:

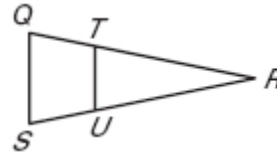
If a line parallel to one side of a triangle intersects the other two sides, then it divides the two sides proportionally.



If  $\overline{TU} \parallel \overline{QS}$ , then \_\_\_\_\_ = \_\_\_\_\_.

### Converse of the Triangle Proportionality Theorem:

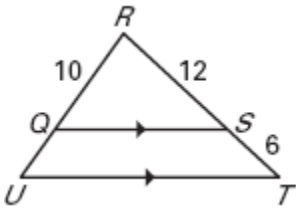
If a line divides two sides of a triangle proportionally, then it is parallel to the third side.



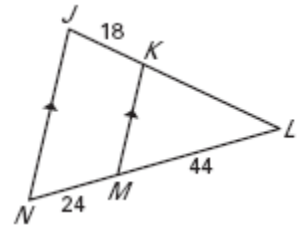
If  $\frac{RT}{TQ} = \frac{RU}{US}$ , then \_\_\_\_\_  $\parallel$  \_\_\_\_\_

### Example 1:

a.) Find the length of  $\overline{QU}$

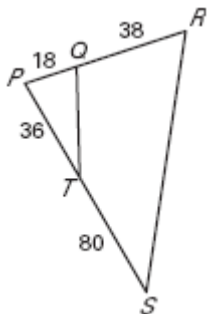


b.) Find the length of  $\overline{KL}$



### Example 2:

a.) Determine whether  $\overline{QT} \parallel \overline{RS}$ .



b.) Given  $AB = 31\text{mm}$ ,  $BC = 19\text{mm}$ ,  $CD = 27\text{mm}$ , and  $DE = 23\text{mm}$ . Determine whether  $\overline{BD} \parallel \overline{AE}$ .

