

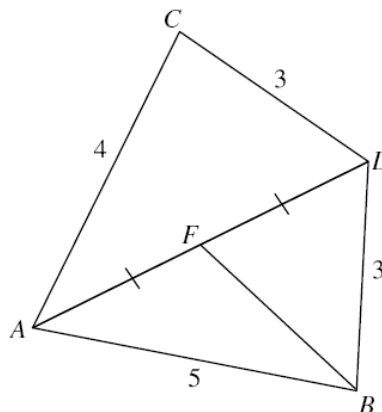
Name: \_\_\_\_\_

## Triangle Inequality

**Exercise 1:** Determine how each pair of angle measures is related.

1)  $m\angle ADC$  and  $m\angle ADB$

2)  $m\angle BFA$  and  $m\angle DFB$

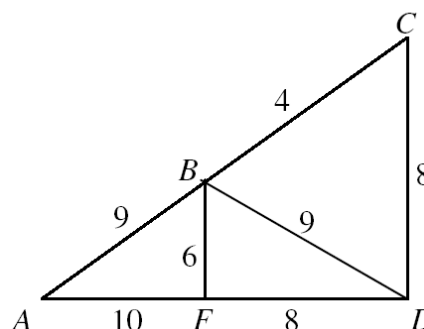


**Exercise 2:** Write an inequality relating the given pair of angle or segment measures.

1)  $m\angle DBF$  and  $m\angle FBA$

2)  $AB, FD$

3)  $m\angle FDB$  and  $m\angle BDC$



**Exercise 3:** Write an indirect proof to show: Given  $\triangle ABC$  with side lengths 8, 10, and 12 as shown

Prove:  $m\angle C > m\angle A$

