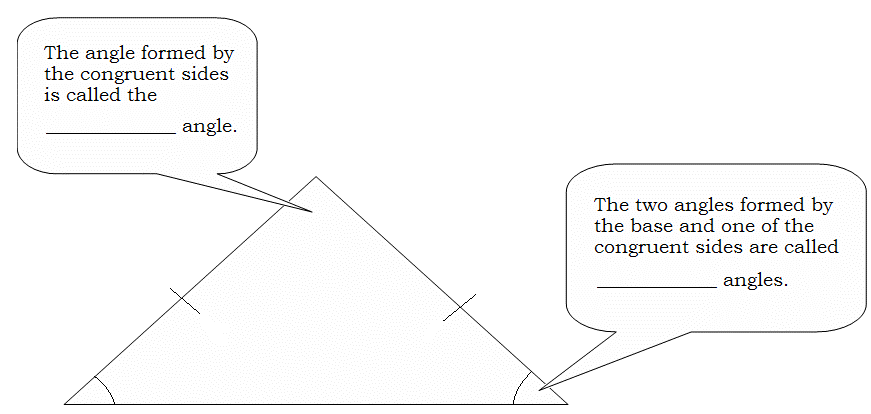
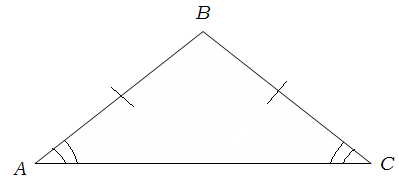
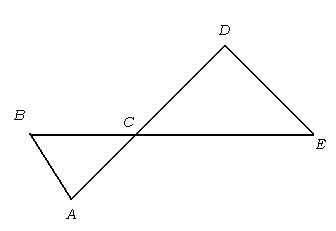
**Unit 5 #5 Isosceles Triangle Theorem**

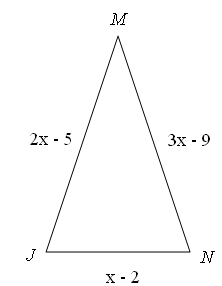
**Isosceles Triangle:** A triangle with at least \_\_\_\_\_\_\_\_\_\_ sides and angles congruent.

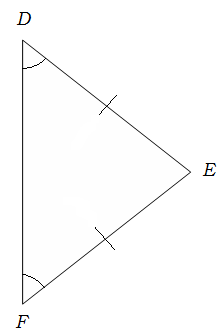


**Isosceles Triangle Theorem:** If two sides of a triangle are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, then the angles opposite those sides are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Example: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Example 1:** If , ,and *m∠CDE* = 120o, what is the measure of *∠BAC*?

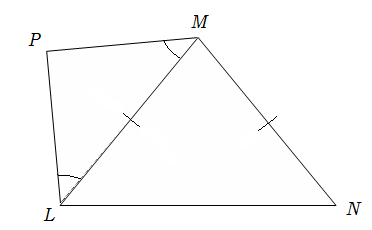
**Example 2:** Find *x*, *, ,* and *JN* if ∆*JMN* is an isosceles triangle with *∠J ≅ ∠N*.

**Example:**

**Converse to Isosceles Triangle Theorem:** If two angles of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are congruent, then the sides opposite those angles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

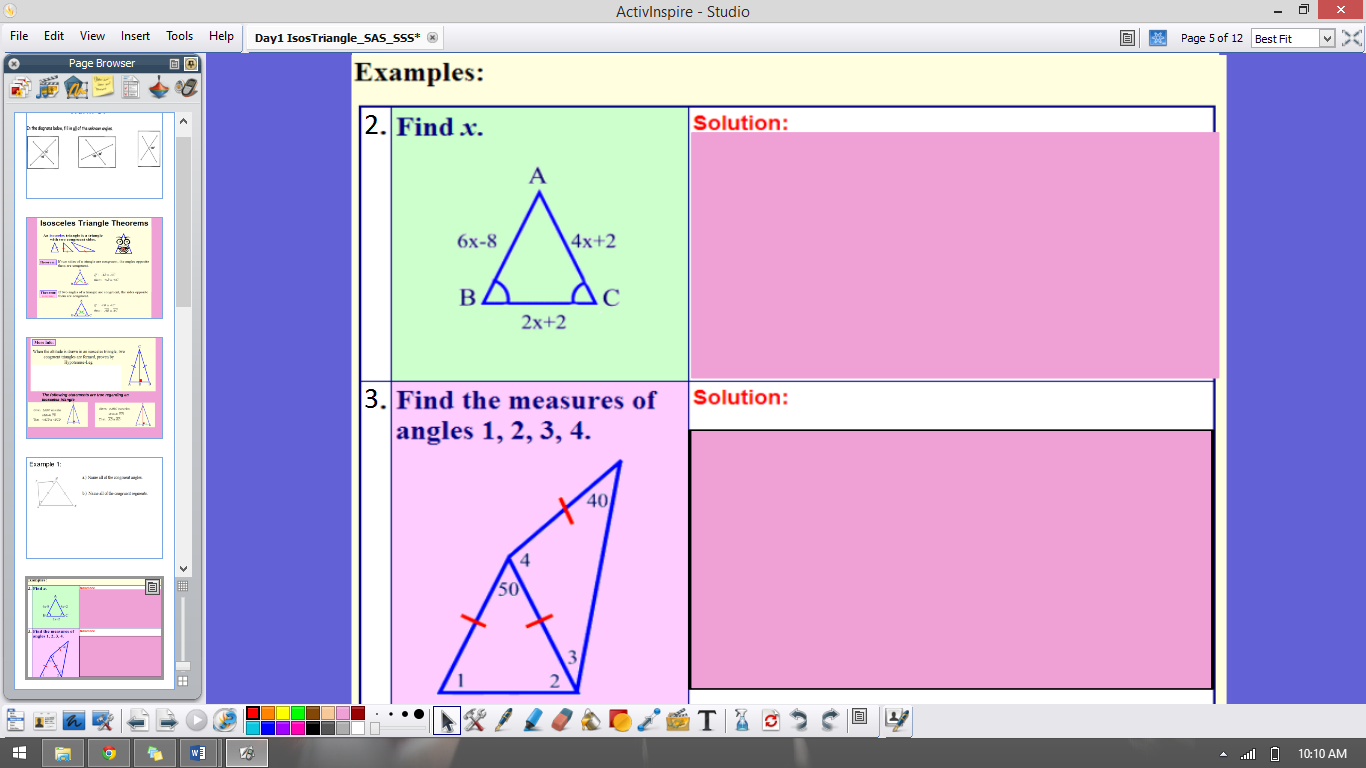
**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Example 3:**

a.) Name all of the congruent angles. b.) Name all of the congruent segments.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Example 4:** Find the measures of angles 1, 2, 3, and 4.