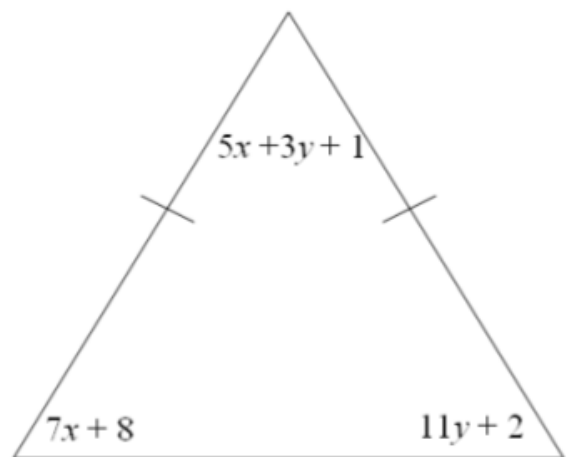


1. The measure of each interior angle of a regular polygon is twenty less than three times the square of the measure of its exterior angle. How many sides does the polygon have?

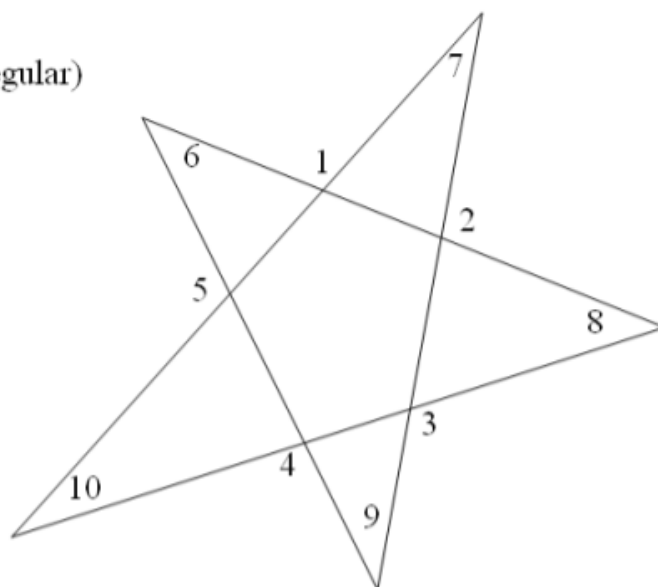
2.  $\triangle EFG$  below is isosceles. Find  $x$  and  $y$ .



3. Use the star below to find the following:  
(Note the pentagon in the center is **not** regular)

a) Find the sum of the  $\angle$ 's 1-5

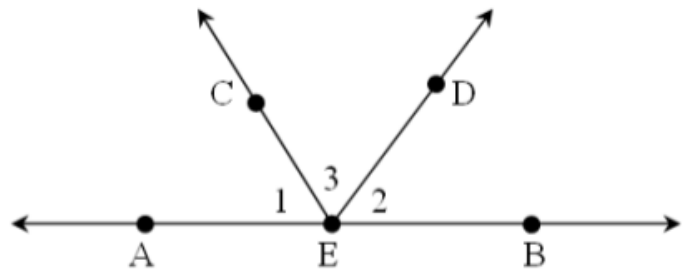
b) Find the sum of the  $\angle$ 's 5-10



4. Write a paragraph proof.

**Given:**  $\overline{EC}$  bisects  $\angle AED$   
 $\overline{ED}$  bisects  $\angle CEB$

**Prove:**  $\angle 1 \cong \angle 2$



5. Write a paragraph proof.

**Given:**  $\overline{AC} \cong \overline{FD}$ ;  $\overline{AB} \cong \overline{ED}$

**Prove:**  $\overline{BC} \cong \overline{FE}$



6. Write a paragraph proof.

**Given:**  $\angle ABD$  and  $\angle CBD$  form a linear pair.  
 $\angle YXY$  and  $\angle WXZ$  form a linear pair.  
 $\angle ABD \cong \angle YXZ$

**Prove:**  $\angle CBD \cong \angle WXZ$

