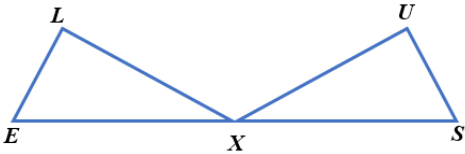
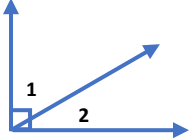
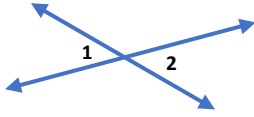

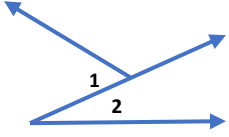
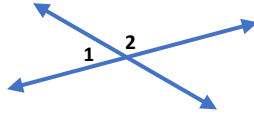


1. **Given:** X is a midpoint of \overline{ES}
 $\angle L$ and $\angle U$ are right angles
 $\overline{LE} \cong \overline{US}$
Prove: $\triangle XLE \cong \triangle XUS$

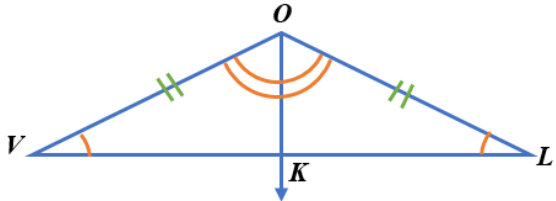
Statements	Reasons
	

2. For each problem a – e, fill in the correct type of angles from the list of choices. Use each answer once.

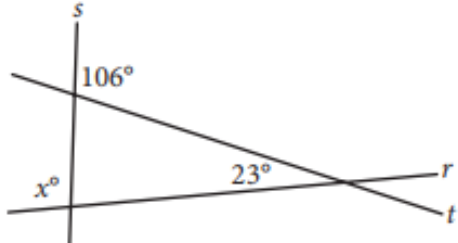
Choices: $\angle 1$ and $\angle 2$ are...
 Vertical Angles
 A Linear Pair
 Complementary **and** Adjacent
 Complementary **not** Adjacent
 Supplementary **not** Adjacent

a. 	b. 	
c. $m\angle 1 = 60^\circ$ and $m\angle 2 = 120^\circ$ 	d. $m\angle 1 = 60^\circ$ and $m\angle 2 = 30^\circ$ 	e. 

3. Describe why K is the midpoint of \overline{VL} .



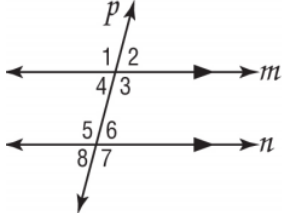
4. Intersecting lines r , s , and t are shown below.



What is the value of x ?

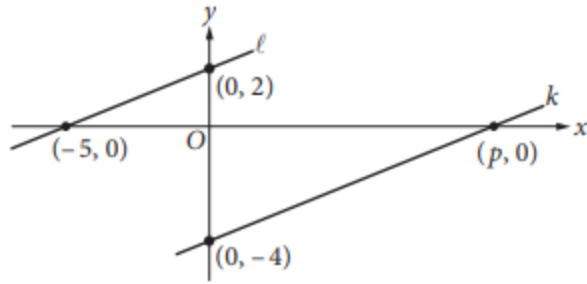
5. Fill in the blank to make the statement true.

- $\angle 4$ and _____ are alternate interior angles.
- $\angle 3$ and _____ are same-side interior angles.
- $\angle 7$ and _____ are corresponding angles.
- $\angle 7$ and _____ are alternate exterior angles.
- $\angle 8$ and _____ are vertical angles.
- $\angle 1$ and _____ are a linear pair.



6. Give a counterexample:
If you have 25 cents, then you have two dimes and a nickel.

7.



In the xy -plane above, line ℓ is parallel to line k . What is the value of p ?

- A) 4
- B) 5
- C) 8
- D) 10

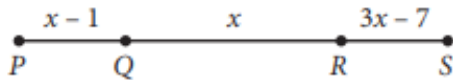
8.

$$-2x + 3y = 6$$

In the xy -plane, the graph of which of the following equations is perpendicular to the graph of the equation above?

- A) $3x + 2y = 6$
- B) $3x + 4y = 6$
- C) $2x + 4y = 6$
- D) $2x + 6y = 3$

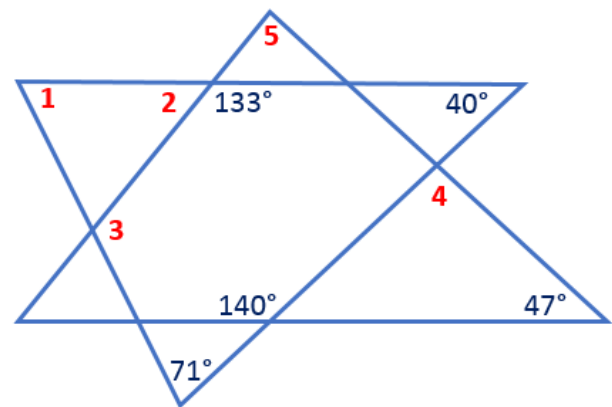
9.



Note: Figure not drawn to scale.

On \overline{PS} above, $PQ = RS$. What is the length of \overline{PS} ?

10. Find the measure of each numbered angle:



$$m\angle 1 =$$

$$m\angle 4 =$$

$$m\angle 2 =$$

$$m\angle 5 =$$

$$m\angle 3 =$$



11. Find the equation of the line that passes through $(-12, 32)$ and $(18, 7)$. Show work with point slope formula. Leave final answer in slope intercept form. Use the graph only to check the reasonableness of your work.

