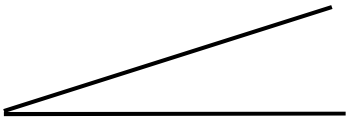
7.2H Parallel Lines Name: _____ Per:_____

SHOW YOUR WORK FOR FULL CREDIT. NO WORK IN PEN.

Construct the angle onto the line segment given. **List your steps** to how you constructed your angle.

1.



2.

_____

_____

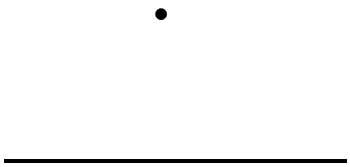
_____

_____

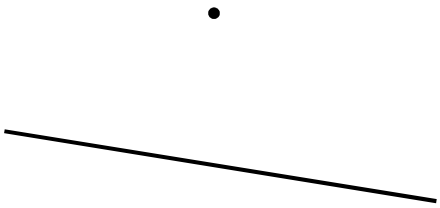
_____

Construct a parallel line passing through the given point. Show markings.

3.



4.



Construct a parallel line to the given segment. Show markings**.**

5.

6.

7. Explain your steps and how you know that your lines are parallel._____

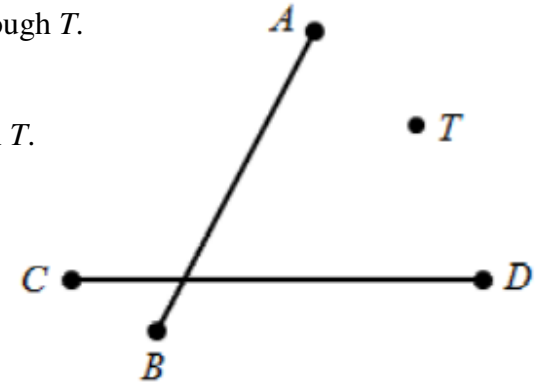
_____

_____

8. Use the image to the right and construct a line parallel to *AB* through *T*.

9. Now construct another line this time parallel to *CD* also through *T*.

10. What shape did you just construct?



Based on each of the following statements, determine **which lines, if any, are parallel.**

11. $\measuredangle 6 \cong \measuredangle 10$ _____

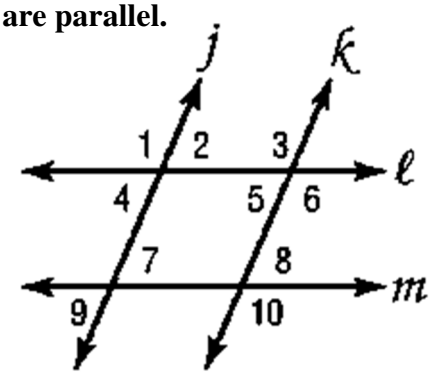
12. $\measuredangle 7 \cong \measuredangle 9$ _____

13. $\measuredangle 6 \cong \measuredangle 1$ _____

14. $\measuredangle 4 + \measuredangle 1 = 180$ _____

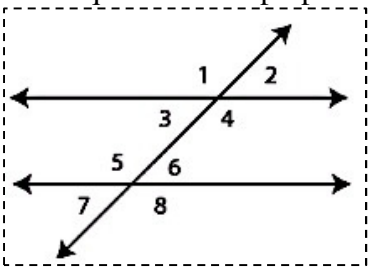
15. $\measuredangle 4 \cong \measuredangle 7$ _____

16. $\measuredangle 2 + \measuredangle 3 = 180$ _____



Use the image to the below each question. Be prepared to explain.

17. If $\measuredangle 2 = 55$, find the measure of the other 7 angles in the image and explain how you know.



$\angle 1$_____. _____

$\angle 3$_____. _____

$\angle 4$_____. _____

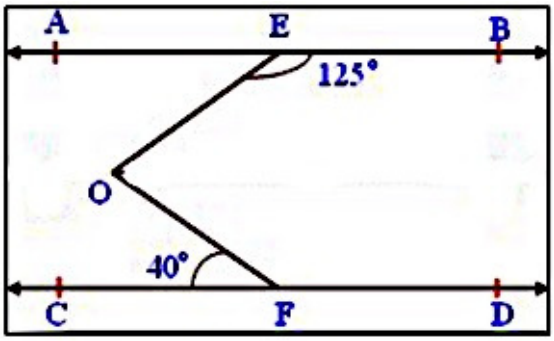
$\angle 5$_____. _____

$\angle 6$_____. _____

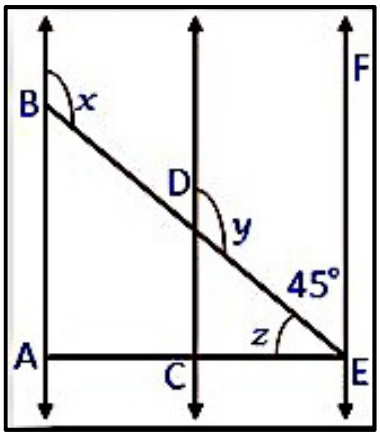
$\angle 7$_____. _____

$\angle 8$_____. _____

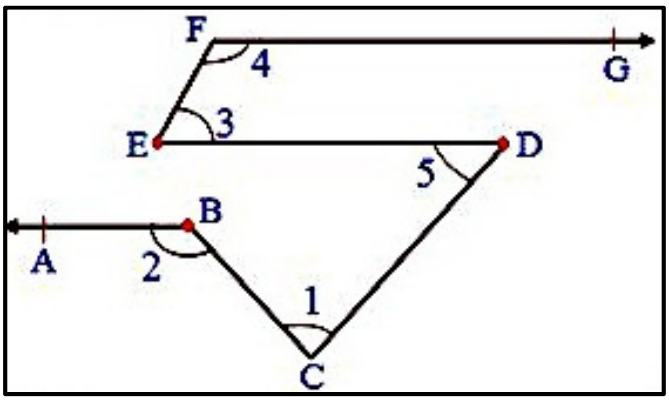
19. In the given figure $AB \parallel CD$, $\angle BEO = 125^{\circ}$, $\angle CFO = 40^{\circ}$. Find the measure of $\angle EOF$.



18. $AB \parallel CD \parallel EF$ and $AE \perp AB$. Find the values of $\angle x, \angle y$ and $\angle z$. Explain how you figured out the measurements.



20. In the figure below, $AB \parallel ED, ED \parallel FG$, and $EF \parallel CD$. Also, $\angle 1 = 60^{\circ}$, $\angle 3 = 55^{\circ}$, then find $\angle 2, \angle 4, \angle 5$. Explain how you figured out the measurements.



21. Name the angle relationship for angles 3 and 4 in #20 above. _____