

Name & Class Block: _____

Angles and Triangles Practice

1a) How many different angles would be formed by a transversal intersecting three parallel lines?

12

1b) How many different angle measures would there be?

2

2) The Cross Country Bike Trail follows a straight line where it crosses 350th and 360th streets. The two streets are parallel to each other. What is the measure of the larger angle formed at the intersection of the bike trail and 360th street?

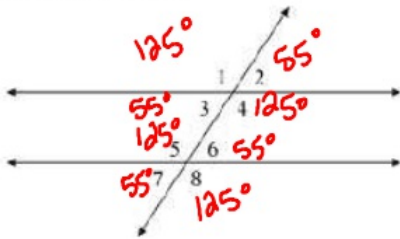
Explain.



$$\begin{array}{r} 180 \\ - 48 \\ \hline 132^\circ \end{array}$$

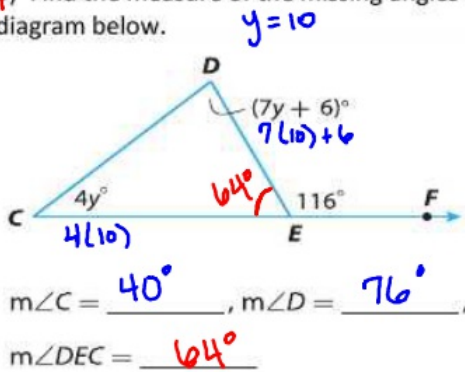
132°

3) In the diagram below, suppose $m\angle 5 = 125^\circ$. Explain how to find the measure of each of the other seven numbered angles.



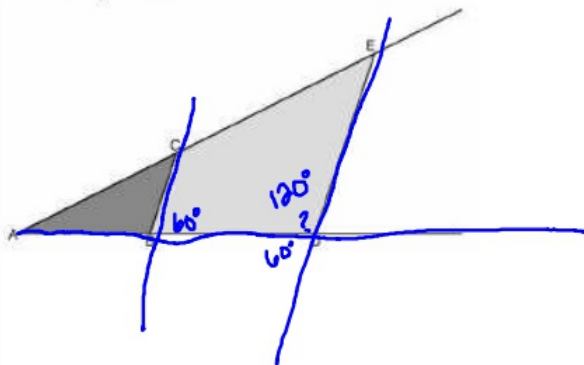
- $\angle 6 = 55^\circ$ b/c Supp. \angle $\angle 5$
- $\angle 7 = 55^\circ$ b/c Vertical w/ $\angle 6$
- $\angle 8 = 125^\circ$ b/c vertical \angle $\angle 5$
- $\angle 4 = 125^\circ$ b/c A.I.A. \angle $\angle 5$
- $\angle 1 = 125^\circ$ b/c vertical \angle $\angle 4$
- $\angle 3 = 55^\circ$ b/c A.I.A. \angle $\angle 6$
- $\angle 2 = 55^\circ$ b/c vertical \angle $\angle 3$

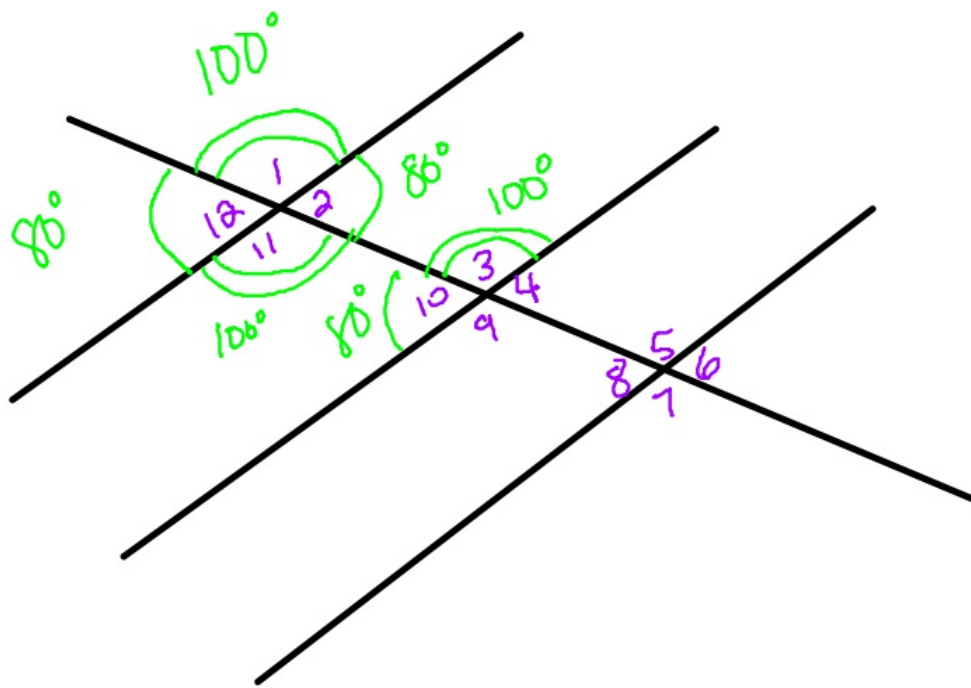
4) Find the measure of the missing angles using the diagram below.



$$\begin{array}{r} 180 \\ - 116 \\ \hline 64 \end{array}$$

5) In the figure below, $\overline{BC} \parallel \overline{DE}$ and $m\angle CBD = 60^\circ$. What is the measure of $\angle EDB$?





$$C + D + DEC = 180$$

$$4y + 7y + 64 = 180$$

$$\begin{array}{r} 11y + 70 = 180 \\ \hline 11y = 110 \\ \hline y = 10 \end{array}$$