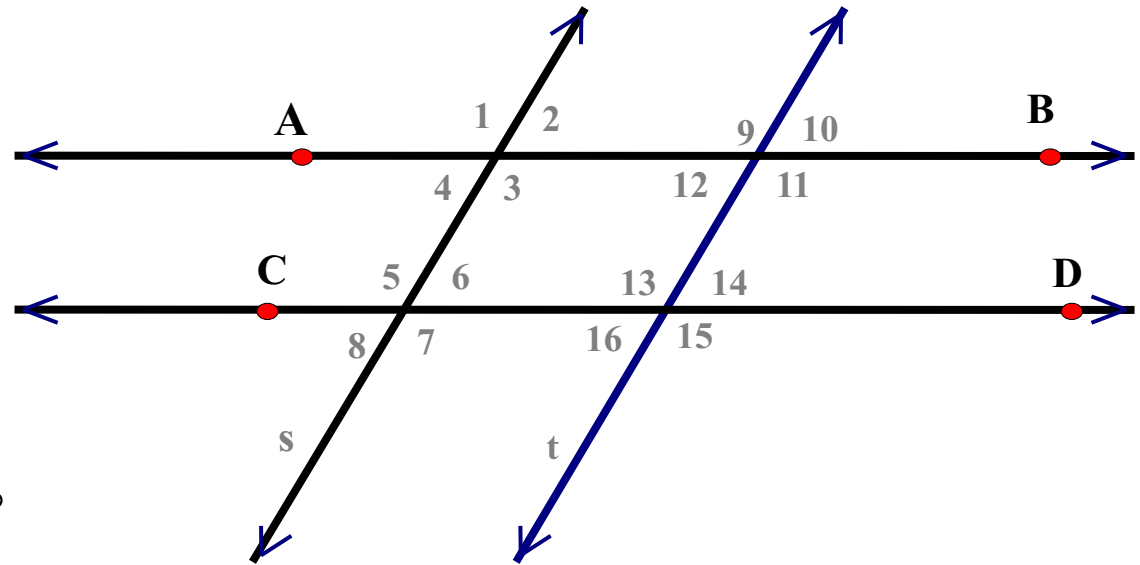


**Example:** If line **AB** is parallel to line **CD** and **s** is parallel to **t**, find the measure of all the angles when  $m\angle 1 = 100^\circ$ . Justify your answers.



$$m\angle 2 = 80^\circ \quad m\angle 3 = 100^\circ \quad m\angle 4 = 80^\circ$$

$$m\angle 5 = 100^\circ \quad m\angle 6 = 80^\circ \quad m\angle 7 = 100^\circ \quad m\angle 8 = 80^\circ$$

$$m\angle 9 = 100^\circ \quad m\angle 10 = 80^\circ \quad m\angle 11 = 100^\circ \quad m\angle 12 = 80^\circ$$

$$m\angle 13 = 100^\circ \quad m\angle 14 = 80^\circ \quad m\angle 15 = 100^\circ \quad m\angle 16 = 80^\circ$$

**Example:** If line **AB** is parallel to line **CD** and **s** is parallel to **t**, find:

1. the value of  $x$ , if  $m\angle 3 = 4x + 6$  and the  $m\angle 11 = 126$ .
2. the value of  $x$ , if  $m\angle 1 = 100$  and  $m\angle 8 = 2x + 10$ .
3. the value of  $y$ , if  $m\angle 11 = 3y - 5$  and  $m\angle 16 = 2y + 20$ .

**ANSWERS:**

1. 30
2. 35
3. 33

