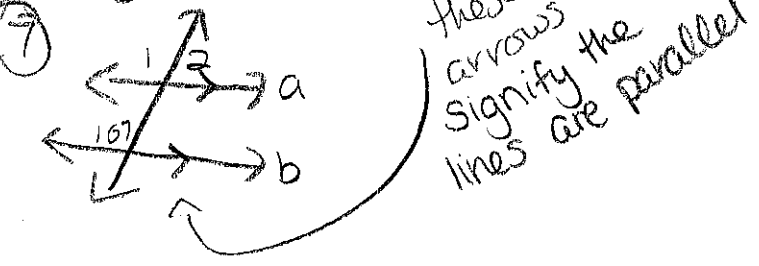


- ①
- ③ m and n
- ④ t
- ⑤ 8

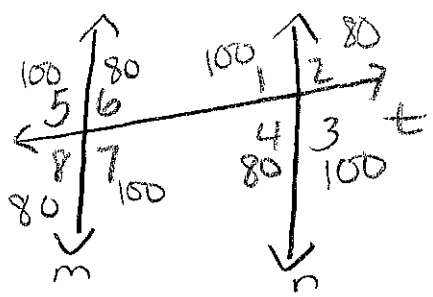
⑥ $\angle 5, \angle 1, \angle 3, \angle 7$ are congruent
 $\angle 8, \angle 6, \angle 4, \angle 2$ are congruent
 ~ see answer to # 2, I substituted values based on what I knew about corresponding angles being congruent



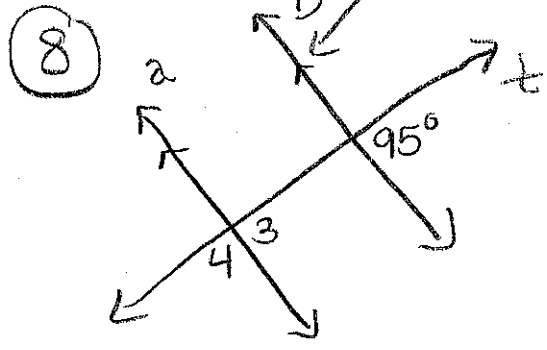
107° is congruent to $\angle 1$, since they are corresponding (in the same position)
 $\angle 2 = 73^\circ$, since they are supplementary angles

$\angle 1 = 107^\circ$
 $\angle 2 = 73^\circ$

② Look at picture of brick wall by 3-6 in text

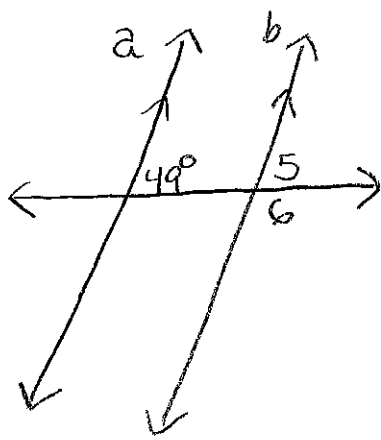


$\angle 2 + \angle 6$ are corresponding
 $\angle 5 + \angle 8$ are supplementary
 * Try assigning random values that will fit appropriately
 $\angle 2 = 80$ $\angle 5 = 100$
 $\angle 6 = 80$ $\angle 8 = 80$
 $\angle 5$ doesn't belong



$\angle 3 = 95^\circ$ (corresponding angles)
 $\angle 4 = 85^\circ$ (supplementary)

9



$\angle 5 = 49^\circ$ (corresponding)
 $\angle 6 = 131^\circ$ (supplementary)

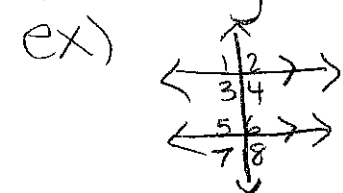
10 There is no (\parallel) symbol on the line to indicate they are parallel. Since they are not parallel, $\angle 5$ is not congruent to $\angle 6$.

11 $\angle 1 = 60^\circ$ (corresponding)

12 railroad tracks
 floor boards
 many more...

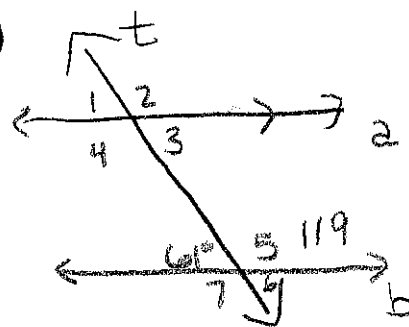
13 skip

14 1 angle



If you know $\angle 1$, you would subtract $\angle 1$ from 180° to find $\angle 2$. Since they are supplementary. Then use the idea of corresponding,

15



$$\begin{array}{r} \angle 5 = 180 \\ - 61 \\ \hline \end{array}$$

119° (supplementary)

$\angle 7 = 119^\circ$ (supplementary)

$\angle 6 = 61^\circ$ (supplementary)

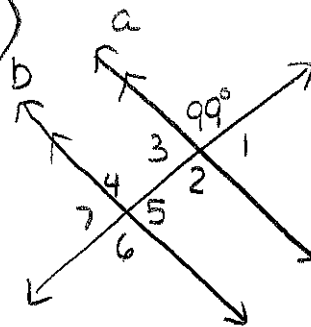
$\angle 4 = 119^\circ$ (corresponding to $\angle 7$)

$\angle 1 = 61^\circ$ (corresponding to $\angle 1$)

$\angle 2 = 119^\circ$ (corresponding to $\angle 5$)

$\angle 3 = 61^\circ$ (corresponding to $\angle 6$)

16



$\angle 2 = 99^\circ$ (vertical)

$\angle 1 = 81^\circ$ (supplementary)

$\angle 3 = 81^\circ$ (vertical)

$\angle 4 = 99^\circ$ (corr to 99°)

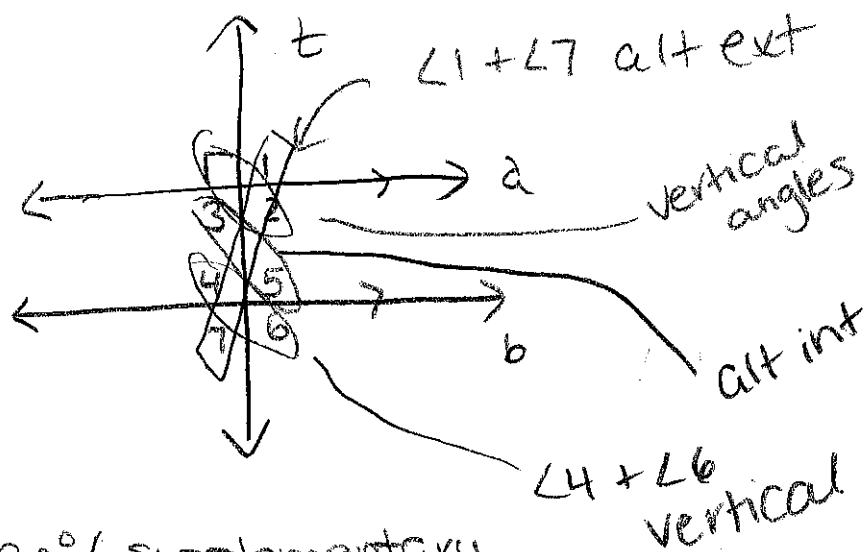
$\angle 5 = 81^\circ$ (corr to $\angle 1$)

$\angle 6 = 99^\circ$ (corr to $\angle 2$)

$\angle 7 = 81^\circ$ (corr to $\angle 3$)

alt interior
 exterior
 angles

17



$\angle 1 = 90^\circ$ (supplementary)

$\angle 2 = 90^\circ$

$\angle 3 = 90^\circ$

$\angle 4 = 90^\circ$

$\angle 5 = 90^\circ$

$\angle 6 = 90^\circ$

$\angle 7 = 90^\circ$

18 56°

Supplementary

19 132° supplementary

20 55° alt interior

21 120° alt exterior

22 129.5

$\angle 6$ is supp to $\angle 2$

$\angle 2$ corr to $\angle 7$

23 61.3°

Supplementary

$\angle 2$ is supp to $\angle 6$

$\angle 6$ is corr to $\angle 3$

24 40° alt interior

25 perpendicular

means two lines meet at 90°

If $\angle 1$ is 90° , then $\angle 3$ is 90° since they are vertical angles. Since $\angle 3$ corr to $\angle 7$, $\angle 7 = 90^\circ$.

$\angle 7$ is vertical to $\angle 5$.

$\angle 1 = \angle 7$ (alt ext)

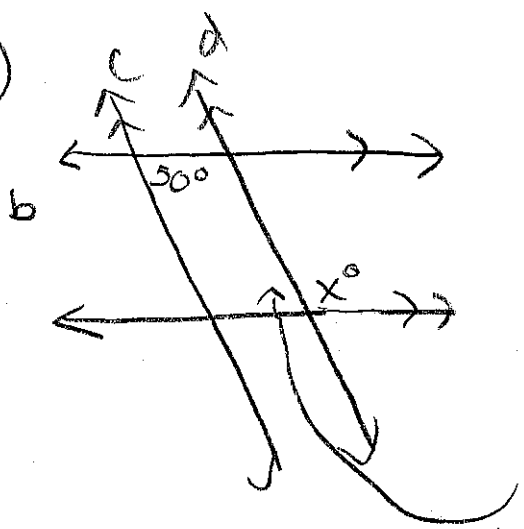
$\angle 3 = \angle 5$ (alt int)

* using picture in book

26

$\angle 1 + \angle 7$ are alt exterior angles.
 $\angle 1 = \angle 5$ (corresponding) and $\angle 5 = \angle 7$ (vertical angles)

27

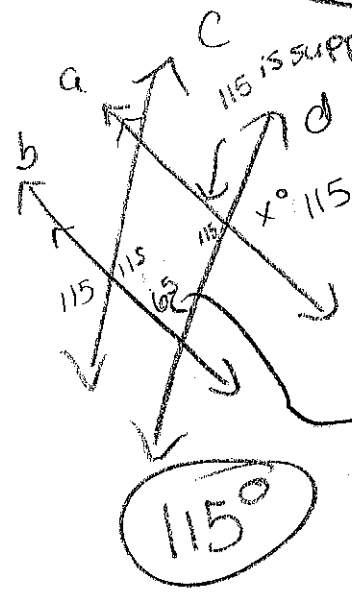


this would be 50° (alt interior)

x° is supplementary to 50° ,
so $180^\circ - 50^\circ = 130^\circ$

$x = 130^\circ$

28



115 is supp to 65

$x = 115 \leftarrow$ vertical angles

supplementary

115°