

## Finding Angle Measures 1

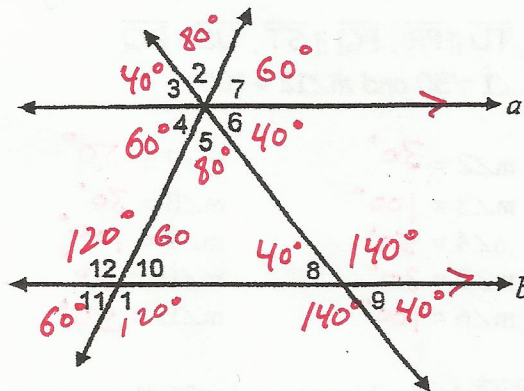
1. Given:  $a \parallel b$

$$m\angle 1 = 120$$

$$m\angle 2 = 80$$

Find:

- $m\angle 3 = 40^\circ$
- $m\angle 4 = 60^\circ$
- $m\angle 5 = 80^\circ$
- $m\angle 6 = 40^\circ$
- $m\angle 7 = 60^\circ$
- $m\angle 8 = 40^\circ$
- $m\angle 9 = 40^\circ$
- $m\angle 10 = 60^\circ$
- $m\angle 11 = 60^\circ$
- $m\angle 12 = 120^\circ$



2. Given:  $\overline{DE} \parallel \overline{AC}$

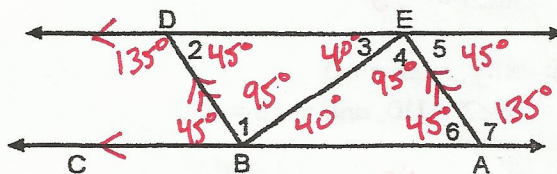
$$\overline{AE} \parallel \overline{DB}$$

$$m\angle DBC = 45$$

$$m\angle EBA = 40$$

Find:

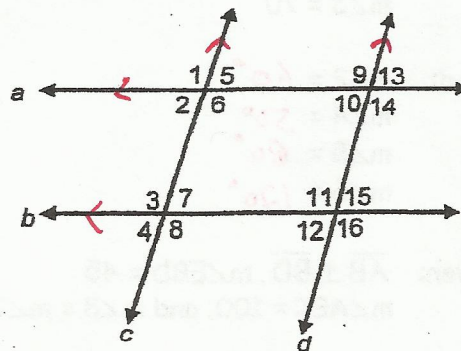
- $m\angle 1 = 95^\circ$
- $m\angle 2 = 45^\circ$
- $m\angle 3 = 40^\circ$
- $m\angle 4 = 95^\circ$
- $m\angle 5 = 45^\circ$
- $m\angle 6 = 45^\circ$
- $m\angle 7 = 135^\circ$



3. Given:  $a \parallel b$

$$c \parallel d$$

If  $m\angle 2 = 80$ , then  $m\angle 11 = 100^\circ$   
 If  $m\angle 12 = 70$ , then  $m\angle 16 = 110^\circ$   
 If  $m\angle 8 = 60$ , then  $m\angle 3 = 60^\circ$   
 If  $m\angle 5 = 110$ , then  $m\angle 7 = 110^\circ$   
 If  $m\angle 2 = 80$ , then  $m\angle 6 = 100^\circ$   
 If  $m\angle 7 = 120$ , then  $m\angle 6 = 60^\circ$   
 If  $m\angle 1 = 100$ , then  $m\angle 13 = 80^\circ$   
 If  $m\angle 8 = 75$ , then  $m\angle 9 = 75^\circ$   
 If  $m\angle 15 = 130$ , then  $m\angle 4 = 130^\circ$   
 If  $m\angle 10 = 65$ , then  $m\angle 14 = 115^\circ$

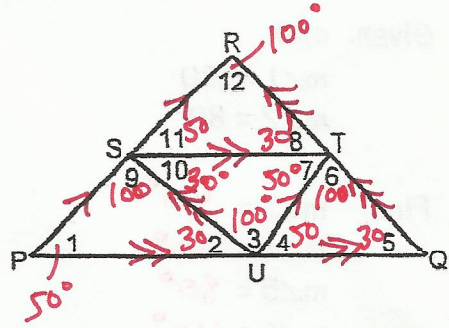


## Finding Angle Measures 2

1. Given:  $\overline{TU} \parallel \overline{PR}$ ,  $\overline{PQ} \parallel \overline{ST}$ ,  $\overline{US} \parallel \overline{RQ}$   
 $\angle 1 = 50$  and  $m\angle 12 = 100$

Find:

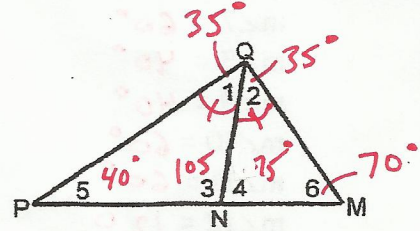
$m\angle 2 = 30^\circ$	$m\angle 7 = 50^\circ$
$m\angle 3 = 100^\circ$	$m\angle 8 = 30^\circ$
$m\angle 4 = 50^\circ$	$m\angle 9 = 100^\circ$
$m\angle 5 = 30^\circ$	$m\angle 10 = 30^\circ$
$m\angle 6 = 100^\circ$	$m\angle 11 = 50^\circ$



2. Given:  $\overline{QN}$  is the bisector of  $\angle PQM$   
 $m\angle 5 = 40$  and  $m\angle 6 = 70$

Find:

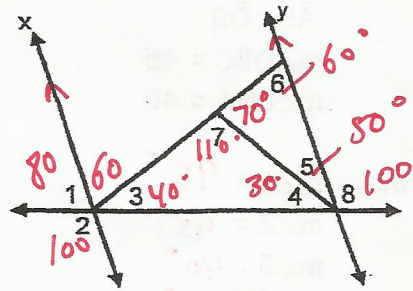
$m\angle 1 = 35^\circ$
$m\angle 2 = 35^\circ$
$m\angle 3 = 105^\circ$
$m\angle 4 = 75^\circ$



3. Given:  $x \parallel y$ ,  $m\angle 6 = 60$   
 $m\angle 7 = 110$ , and  $m\angle 8 = 100$

Find:

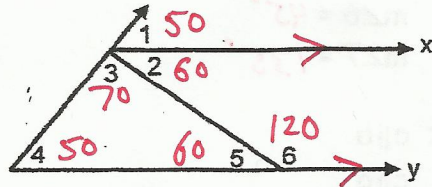
$m\angle 1 = 80$
$m\angle 2 = 100$
$m\angle 3 = 40$
$m\angle 4 = 30$
$m\angle 5 = 50$



4. Given:  $x \parallel y$ ,  $m\angle 1 = 50$   
 $m\angle 3 = 70$

Find:

$m\angle 2 = 60^\circ$
$m\angle 4 = 50^\circ$
$m\angle 5 = 60^\circ$
$m\angle 6 = 120^\circ$



5. Given:  $\overline{AB} \perp \overline{BD}$ ,  $m\angle EBD = 45$   
 $m\angle AEC = 100$ , and  $m\angle 3 = m\angle 2$

Find:

$m\angle 1 = 140^\circ$	$m\angle CED = 80^\circ$
$m\angle 2 = 40^\circ$	$m\angle 8 = 100^\circ$
$m\angle 3 = 40^\circ$	$m\angle 9 = 45^\circ$
$m\angle 4 = 55^\circ$	$m\angle 10 = 45^\circ$
$m\angle 5 = 80^\circ$	$m\angle 11 = 35^\circ$
$m\angle 6 = 100^\circ$	$m\angle 12 = 145^\circ$

