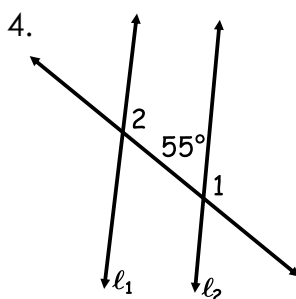## Day 4 – Lines and Transversals
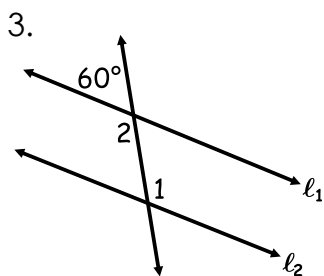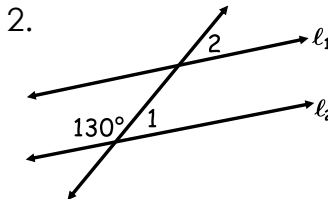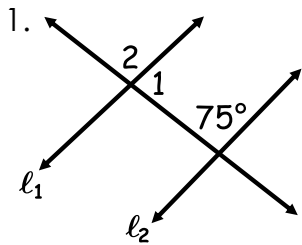
In problems 1 – 4, assume that $\ell_1 \| \ell_2$. Find the measures of $\angle 1$ and $\angle 2$.

1.

2.

3.

4.

5. Given $m \| n$ and m$\angle$8 = 119°, find the measures of all the numbered angles in the figure.

m$\angle$1 = _____, m$\angle$2 _____, m$\angle$3 = _____

m$\angle$4 = _____, m$\angle$5 = _____, m$\angle$6 = _____, m$\angle$7 = _____
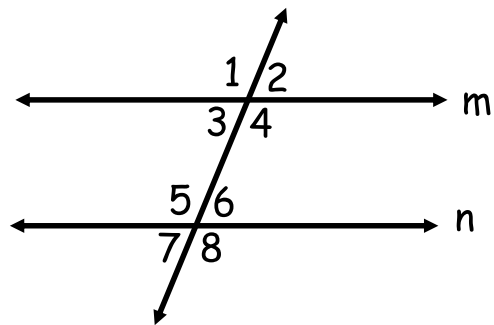
6. Given $p \| q$, m$\angle$1 = 78°, and m$\angle$2 = 47°, find the measures of all the numbered angles.

m$\angle$3 = _____, m$\angle$4 = _____, m$\angle$5 = _____, m$\angle$6 = _____

m$\angle$7 = _____, m$\angle$8 = _____, m$\angle$9 = _____
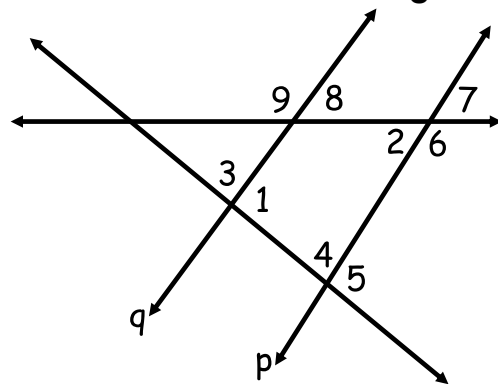
In problems 7 – 10, assume $a \parallel b$. Find the value of x.

7.

$2x-5°$

$3x - 50°$

8.

$8x + 12$

$2x$

9.

$4x + 22$

10.

$57°$

$3x - 9$
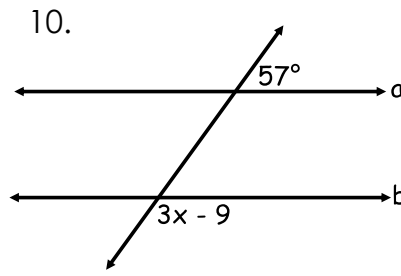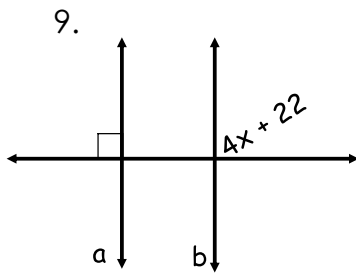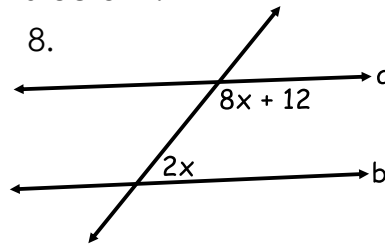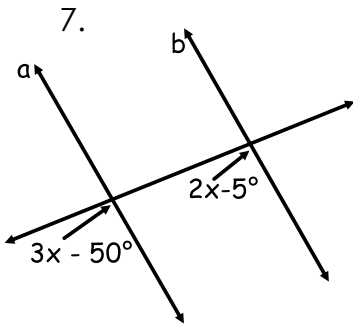
In problems 11 & 12, $\overline{AB} \parallel \overline{CD}$, find the measure of each numbered angle.

11.

A

1

B

$120°$

$60°$ 2 $3/4$

C D

12.

B

1

2

A 3 D

$45°$
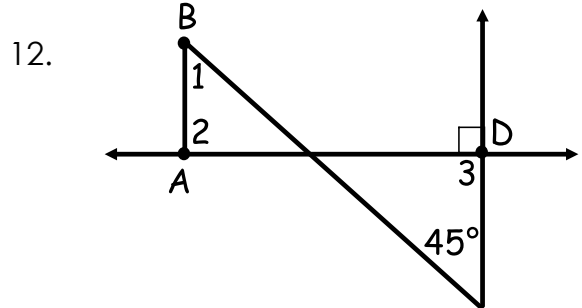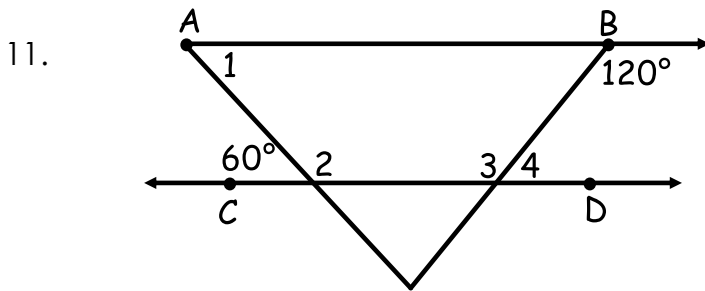
Jane and Opal were playing around with straws after lunch. They made the designs below with parallel straws. Find the missing variables.

13. Jane's Design:

$y°$ $135°$

$z°$

$70°$ $x°$

14. Opal's Design:

$140°$

$x°$

$70°$