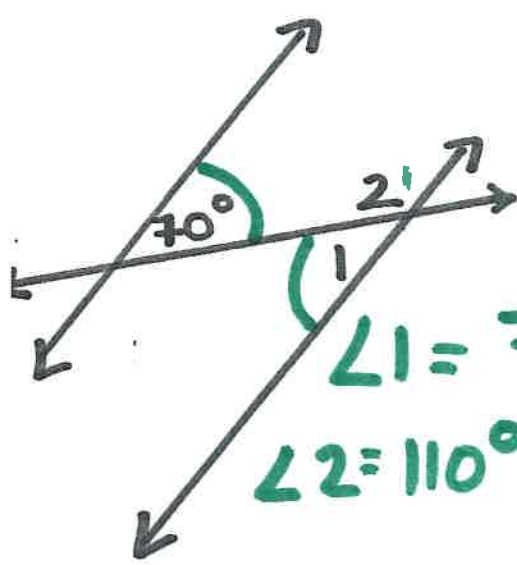


$$\angle 1 = \underline{110^\circ}$$

because...
alt. exterior

$$\angle 2 = \underline{110^\circ}$$

because...
corresponding
Vertical \angle s



What do $\angle 2$
and $\angle 1$ have
to equal for the
lines to be parallel

$\angle 1 = 70^\circ$ - alt.
interior
 $\angle 2 = 110^\circ$ - consecutive

$$\angle 1 + 63^\circ = 180$$

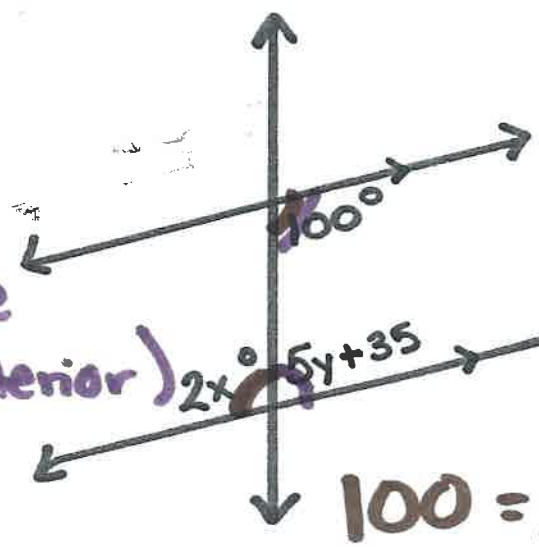
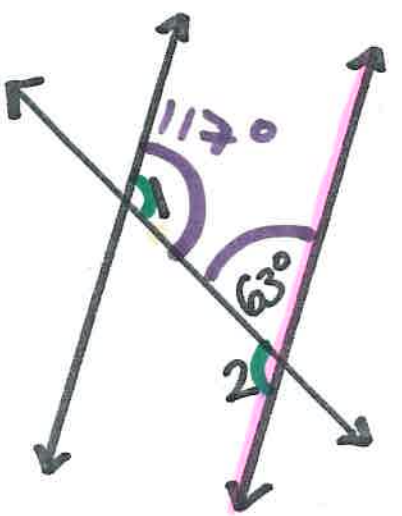
$$\underline{-63}$$

$$\angle 1 = \underline{117^\circ}$$

because...
consecutive (same
side interior)

$$\angle 2 = \underline{117^\circ}$$

because...
alt. interior



Solve for
 x and y .

$$x = 50$$

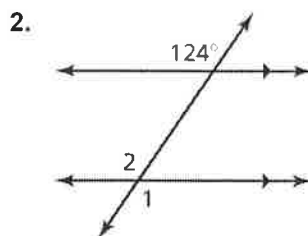
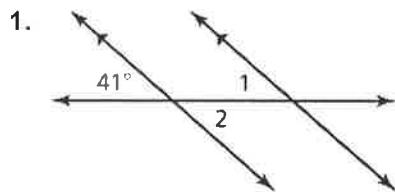
$$y = \underline{9}$$

$$100 = 2x$$

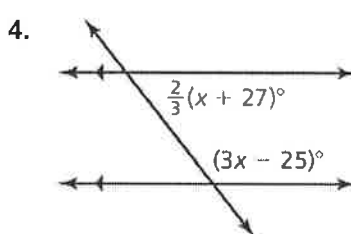
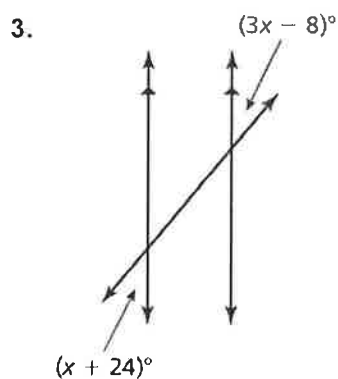
$$100 + 5y + 35 = 180$$

3B Practice

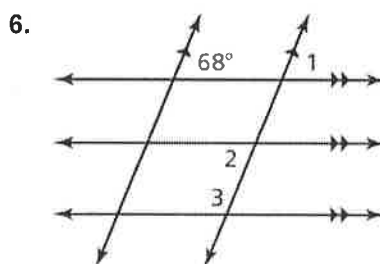
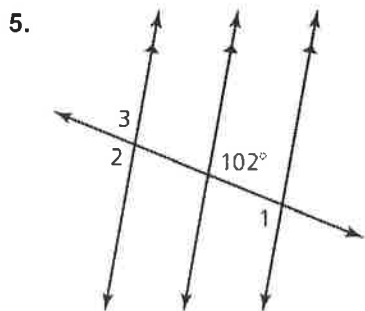
In Exercises 1 and 2, find $m\angle 1$ and $m\angle 2$. Tell which theorem you used in each case.



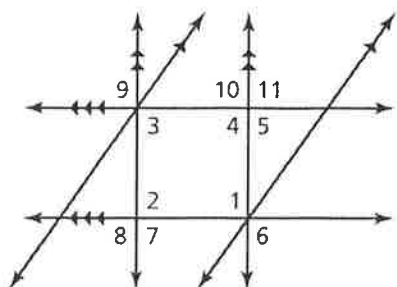
In Exercises 3 and 4, find the value of x . Show your steps.



In Exercises 5 and 6, find $m\angle 1$, $m\angle 2$, and $m\angle 3$. Explain your reasoning.

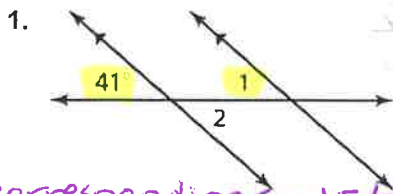


8. The figure shows three pairs of parallel lines. Which angles are congruent to $\angle 1$? Tell which theorem you used in each case.

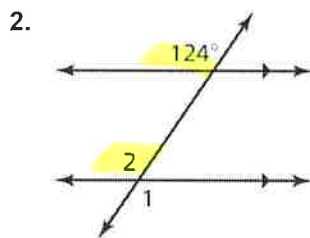


3B Practice

In Exercises 1 and 2, find $m\angle 1$ and $m\angle 2$. Tell which theorem you used in each case.

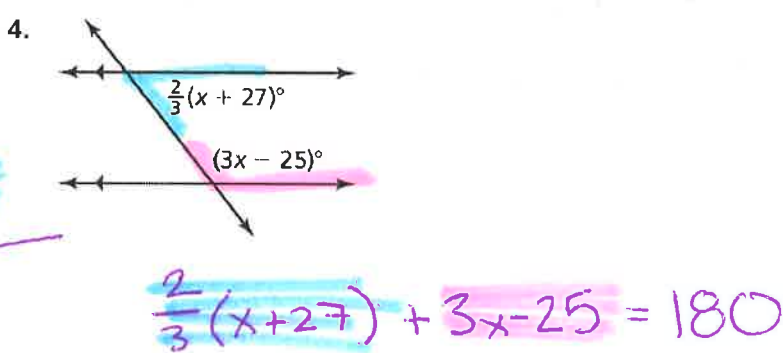
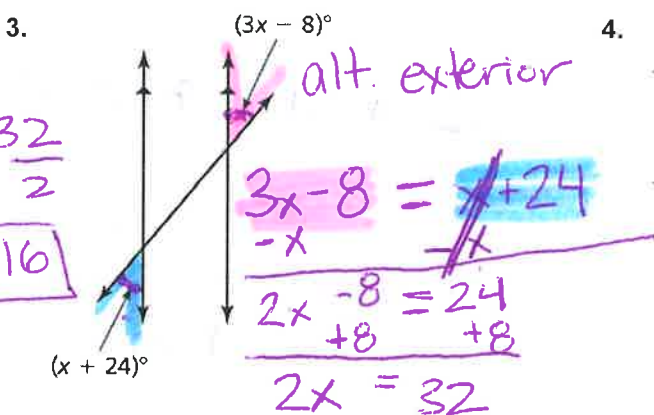


corresponding - $1 = 41^\circ$
alt interior - $2 = 41^\circ$

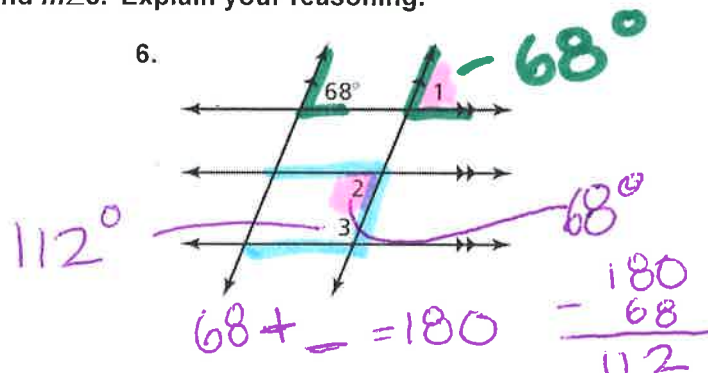
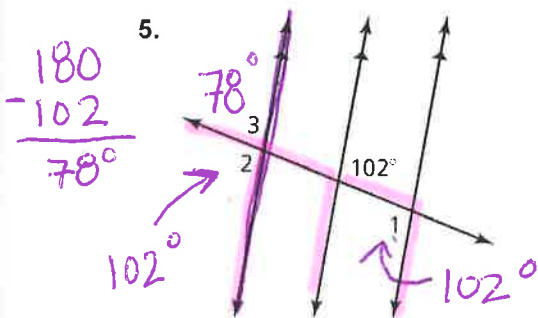


corresponding
 $\angle 2 = 124^\circ$
 $\angle 1 = 124^\circ$
Vertical \angle s

In Exercises 3 and 4, find the value of x . Show your steps.



In Exercises 5 and 6, find $m\angle 1$, $m\angle 2$, and $m\angle 3$. Explain your reasoning.



8. The figure shows three pairs of parallel lines. Which angles are congruent to $\angle 1$? Tell which theorem you used in each case.

