Name_____ Date_____ Block_____

Given that $\overleftrightarrow{m} \parallel \overleftrightarrow{l}$, prove the Alternate Exterior

Angle Theorem by proving $\angle 1 \cong \angle 8$

Statement	Reason

Given that $\overleftrightarrow{m} \parallel \overleftrightarrow{l}$, prove

$\angle 4 \ and \ \angle 6 \ are \ supplementary$
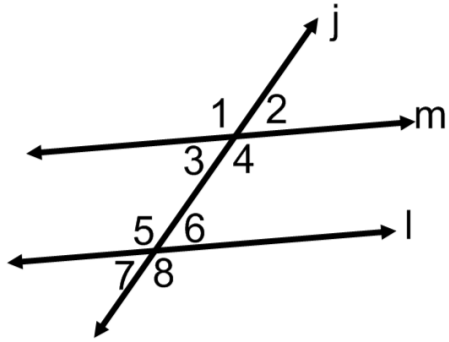
Statement	Reason

Given that $\overleftrightarrow{k} \parallel \overleftrightarrow{j}$, prove the Alternate Interior

Angle Theorem by proving $\angle 4 \cong \angle 5$

Statement	Reason

Given that $\overleftrightarrow{k} \parallel \overleftrightarrow{j}$, prove the

$\angle 1 \ and \ \angle 6 \ are \ supplementary$
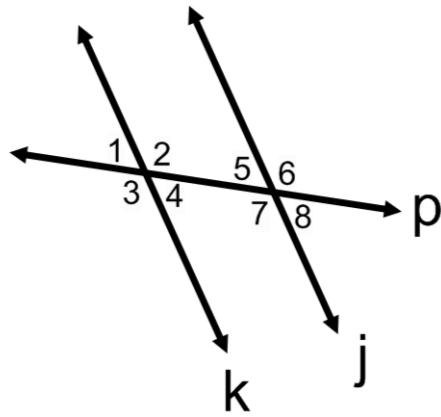
Statement	Reason

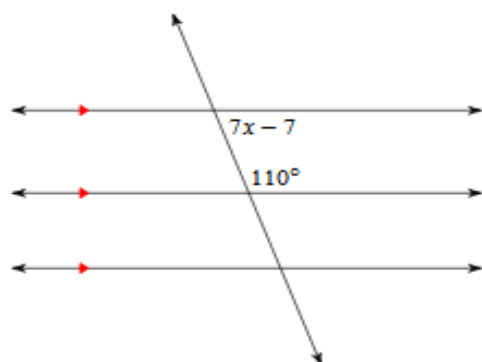**Identify each pair of angles as corresponding, alternate interior, alternate exterior, consecutive interior, vertical, or adjacent. Solve for x.**
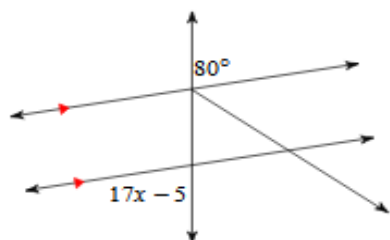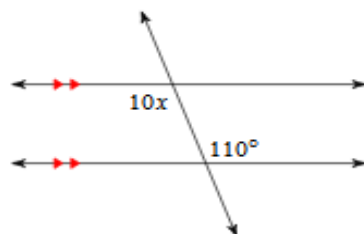
1)
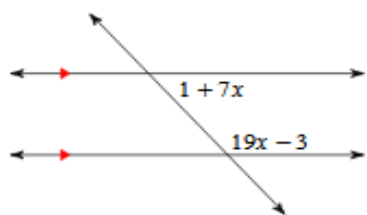
$1 + 7x$

$19x - 3$

2)
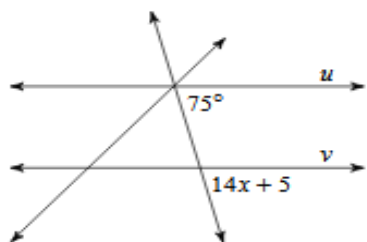
$7x - 7$

$110°$

3)
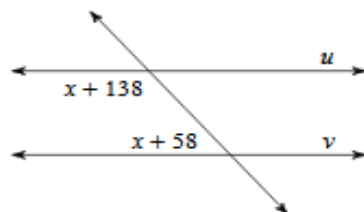
$80°$

$17x - 5$

4)

$10x$

$110°$

Identify each pair of angles as corresponding, alternate interior, alternate exterior, consecutive interior, vertical, or adjacent. Find the value of x that makes lines u and v parallel.
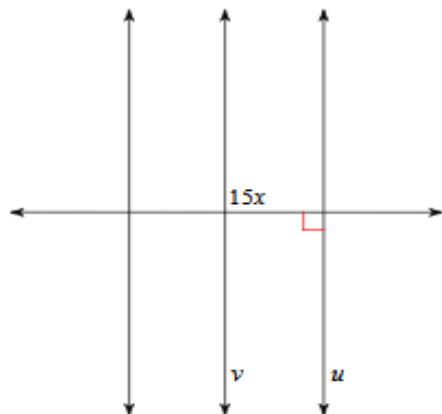
5)

u

$75°$

v

$14x + 5$

6)

u

$x + 138$

$x + 58$

v

7)

$15x$

v u

8)

$8x - 6$ u

v

$50°$