

Chapter 2: Perpendicular / Parallel
Lesson 2-5: Proving Lines Parallel
Classwork

name _____
 date _____
 period _____

Given that $a \parallel b$, complete the following:

1. If $m\angle 1 = m\angle 8$, then _____ $\parallel$ _____

Reason: _____

2. If $m\angle 4 = m\angle 8$, then _____ $\parallel$ _____

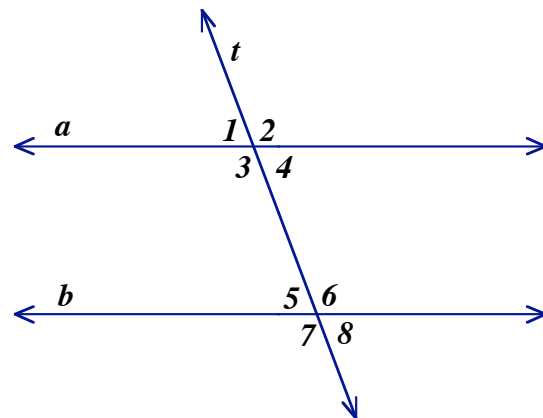
Reason: _____

3. If $m\angle 3 + m\angle 5 = 180^\circ$, then _____ $\parallel$ _____

Reason: _____

4. If $m\angle 4 = m\angle 5$, then _____ $\parallel$ _____

Reason: _____

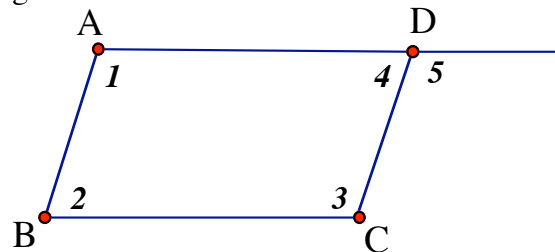


Given $AD \parallel BC$ and $AB \parallel DC$, complete the following.

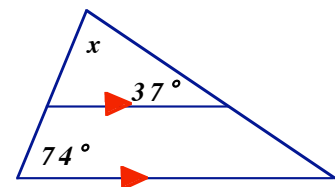
_____ 5. If $m\angle 3 = 4x + 10$ and $m\angle 5 = 130^\circ$,
 find x .

_____ 6. If $m\angle 3 = 3x - 7$ and $m\angle 4 = 2x - 8$,
 find x and $m\angle 3$.

_____ 7. If $m\angle 2 = 4x - 30$ and $m\angle 4 = 2x + 14$,
 find $m\angle 4$.

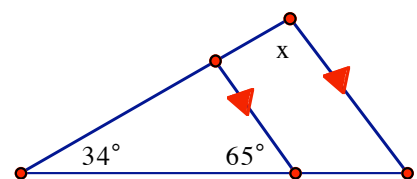


_____ 8. Find the value of x .



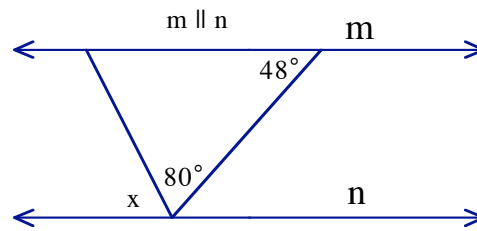
Question 8

_____ 9. Find the value of x .



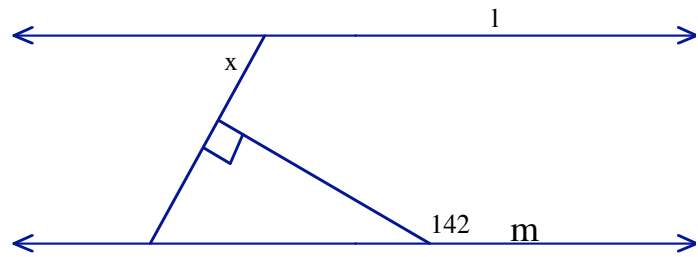
Question 9

_____ 10. If $m \parallel n$, find the value of x .



Question 10

_____ 11. If $l \parallel m$, find the value of x .



Question 11