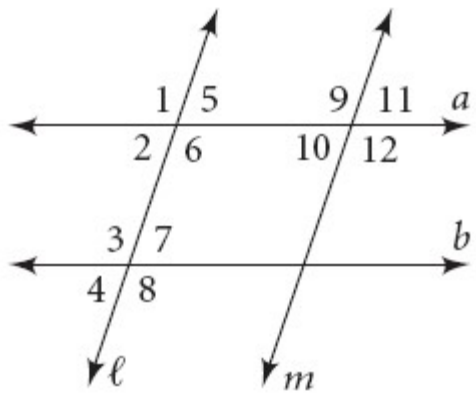
Secondary 2
lesson 6.3

Problems with Angle Pairs and Quadrilaterals

Objectives:

- Review some Quadrilateral Properties
- Find missing sides and angles using Angle Pair and quadrilateral properties

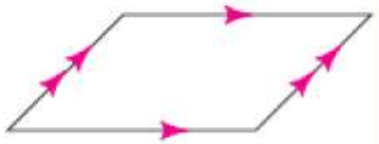
Review angle pairs:



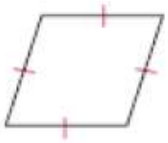
Review Quadrilaterals:

Definitions — Special Quadrilaterals

A **parallelogram** is a quadrilateral with both pairs of opposite sides parallel.

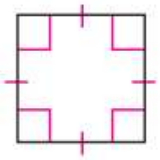


A **rhombus** is a parallelogram with four congruent sides.

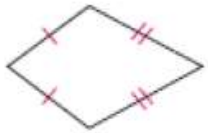


A **rectangle** is a parallelogram with four right angles.

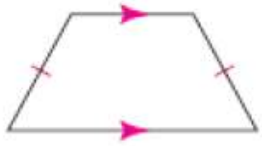
A **square** is a parallelogram with four congruent sides and four right angles.



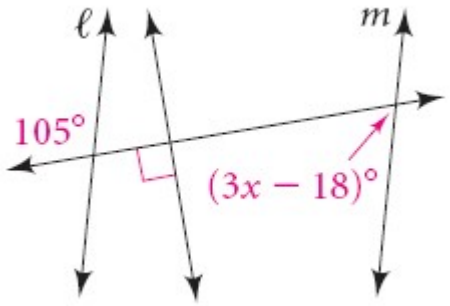
A **kite** is a quadrilateral with two pairs of adjacent sides congruent and no opposite sides congruent.

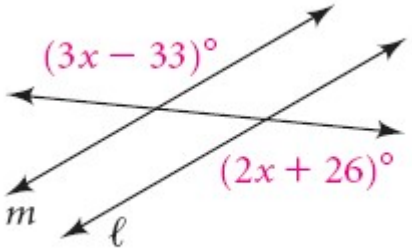


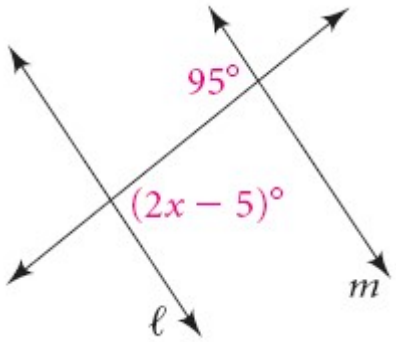
A **trapezoid** is a quadrilateral with exactly one pair of parallel sides. The **isosceles trapezoid** at the right is a trapezoid whose nonparallel opposite sides are congruent.



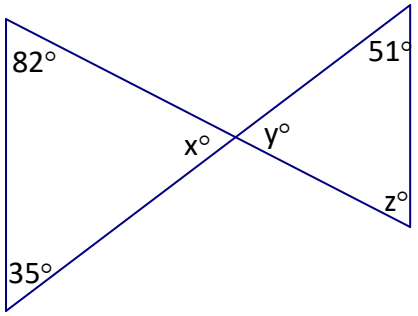
Given that l and m are parallel, find x.

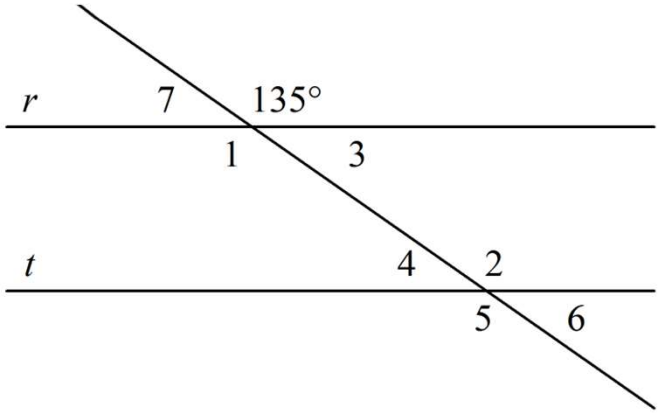




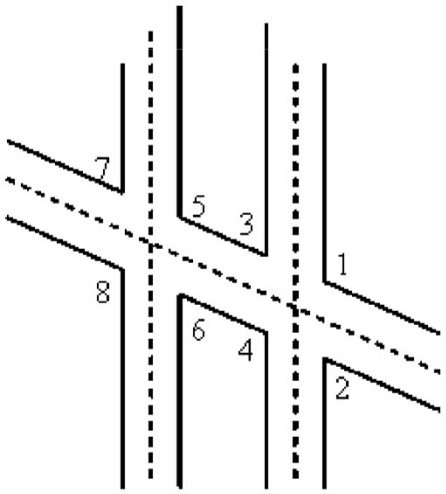


Solve for x and y.



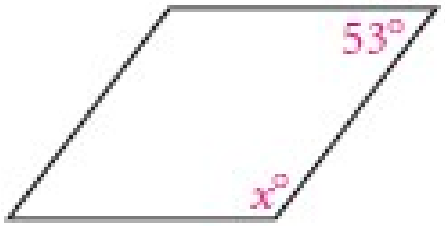


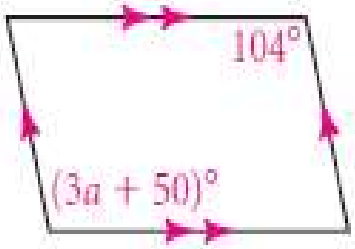
Line r is parallel to line t. Find $m\angle 5$. The diagram is not to scale.

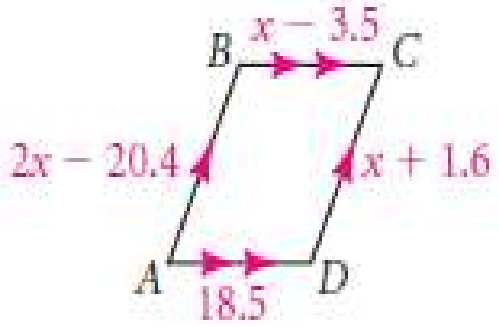


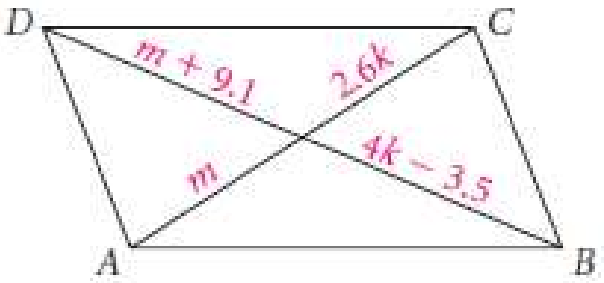
If $\angle 8$ measures 119°, what is the sum of the measures of $\angle 1$ and $\angle 4$?

Given the parallelograms, find the value of x.

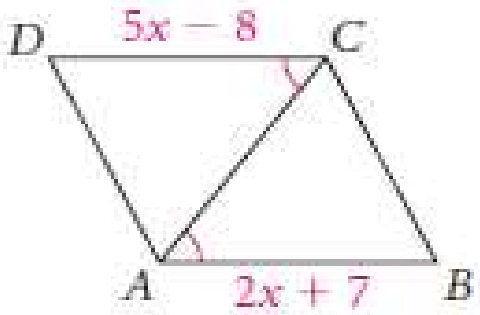


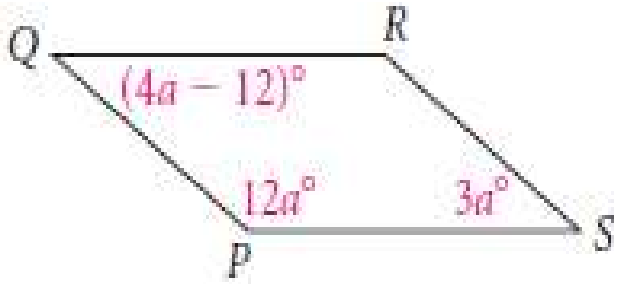






Find the value of x for which ABCD must be a parallelogram.





$** \textit{How many ways can you solve } 2x^2 - 5x - 3 = 0?$

Assignment:

XL6.3

and

Use your notes to finish handout 6.3