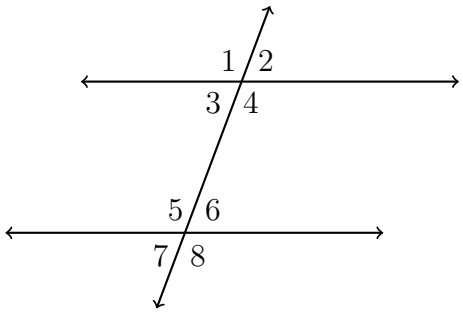
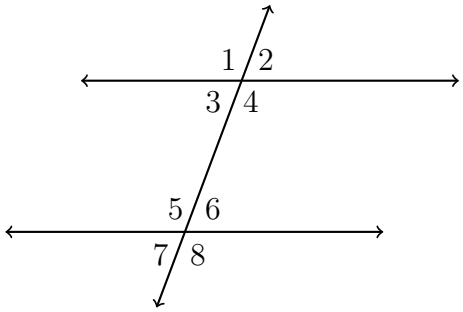
3.2 Finding angle measures for transverse lines

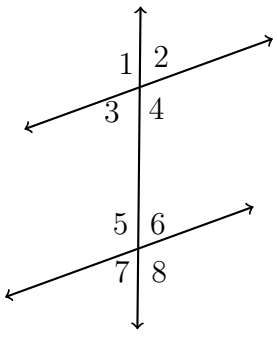
1. Given two parallel lines and a transversal, with $m\angle 4 = 3x$ and $m\angle 5 = x + 70$. Write an equation, then solve for x.



2. Given two parallel lines and a transversal, with $m\angle 1 = 3x - 10$ and $m\angle 8 = 2x + 32$. Write an equation, then solve for x.



3. Do Now: Given two parallel lines and a transversal, as shown, with $m\angle 8 = 123°$.



   (a) What angle is corresponding to $\angle 8$?

   (b) What angle is alternate exterior to $\angle 8$?

   (c) Find $m\angle 2$

4. Find $m\angle 1$ given two parallel lines and a transversal, with

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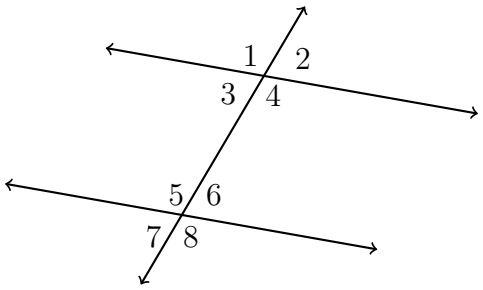
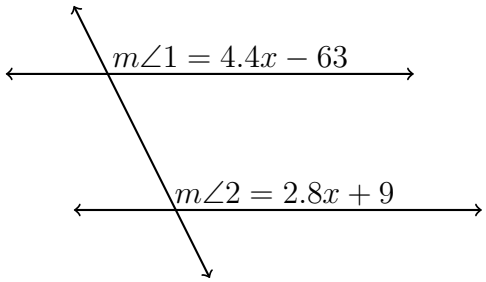
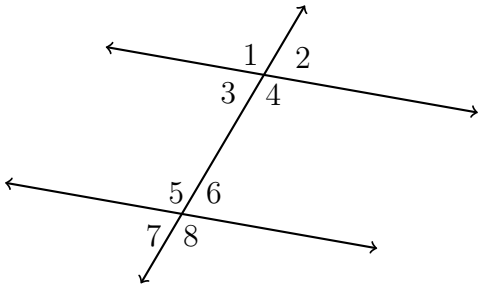
$m\angle 2 = \frac{2}{7}(2x + 58)$ $\quad$ $m\angle 7 = \frac{1}{7}(5x + 5)$



5. Two parallel lines intersect a transversal. Given corresponding angles $m\angle 1 = 4.4x - 63$ and $m\angle 2 = 2.8x + 9$, find the measure of $\angle 1$.



6. Given two parallel lines and a transversal, with $m\angle 3 = 18(x - 1)$ and $m\angle 5 = 18(x + 1)$. Find $m\angle 1$. (First write an equation, and solve for x)



7. Find $m\angle 1$ given two parallel lines and a transversal, with

$m\angle 4 = 10(7x - 4)$ $m\angle 6 = 8(7x - 4)$