Name:

BECA / Dr. Huson / Geometry 03 Parallels and transversals

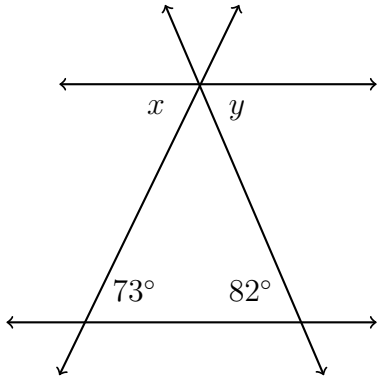
3.6 Triangle angles

1. Do Now: Given two parallel lines, two transversals

   (a) Find x, y

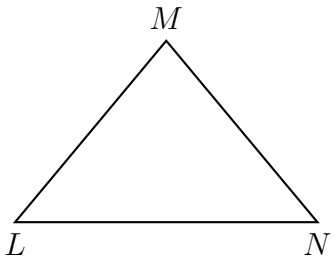
   (b) What relationship are you using?

   (e.g. vertical angles, same-side exterior angles, alternate interior angles, etc.)



2. A triangle has two angles measuring 80° and 60° respectively. Find the measure of the third angle.

3. Given $\triangle LMN$ with $m\angle L = 2x + 20$, $m\angle N = 3x + 5$, and $m\angle M = 5x + 5$. Find x.



4. The measures in degrees of the three angles of a triangle are $3x$, $\frac{1}{2}x + 7$, and $5x - 65$. Find x.

5. Mark each statement true of false.

   (a) T F 3.14 is the exact value of π

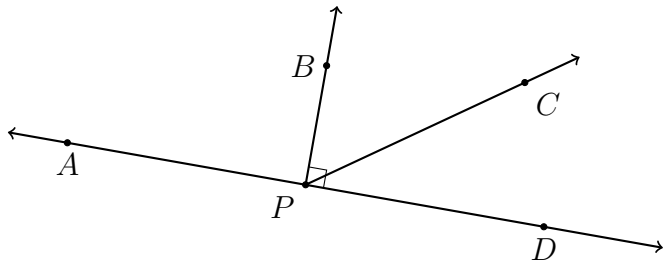
   (b) T F 4π is the area of a circle with radius 2 in terms of π

   (c) T F $C = 10\pi \approx 31.4$ is an approximation

   (d) T F $3\sqrt{2}$ is an exact value

   (e) T F $0.707\ldots$ is an approximation for $\dfrac{1}{\sqrt{2}}$

6. Angles APC and CPD form a linear pair. $m\angle APC = 10x+15$ and $m\angle CPD = 3x-4$. Find $m\angle CPD$. Check your answer for full credit.



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

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