

Name: \_\_\_\_\_

MATH 307

Spring 2023

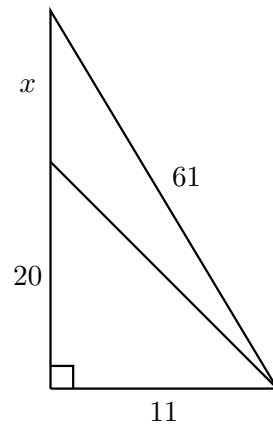
HW 11: Due 04/14

*“The power of mathematics is often to change one thing into another;  
to change geometry into language.”*

*–Marcus du Sautoy*

**Problem 1.** (10pt) The speed of an airplane is 821.3 ft/s. Find this speed in miles per hour (mph).  
[Note: 5280 ft = 1 mi]

**Problem 2.** (10pt) Find  $x$  in the diagram below:



**Problem 3.** (10pt) A 'track' consists of two semicircles adjoined to the sides of a rectangle. Find the perimeter and the area of the 'track' below.

