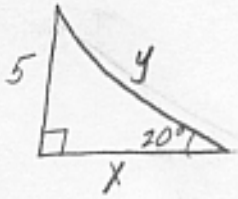
Quiz 6 Algebra & Trig 4/13/2003

Each problem is worth 5 points. For full credit provide complete justification for your answers.

1. If a right triangle has an angle of measure 20° and the side opposite that angle has length 5, what are the lengths of the other two sides (accurate to two decimal places)?



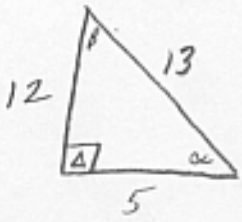
$\tan 20 = \frac{5}{X}$

$X = 13.74$

$\sin 20 = \frac{5}{y}$

$y = 14.62$

2. If a right triangle has sides of length 5, 12, and 13, what are the measures of the angles (accurate to two decimal places)?



$\tan \alpha = \frac{12}{5}$

$\alpha = 67.38°$

$\sin \beta = \frac{5}{13}$

$\beta = 22.62°$

$\Delta = 90.00°$