

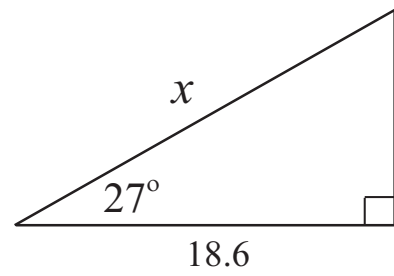
Name_____

Phys 2010 (NSCC), Spring 2007
Problem Set #1

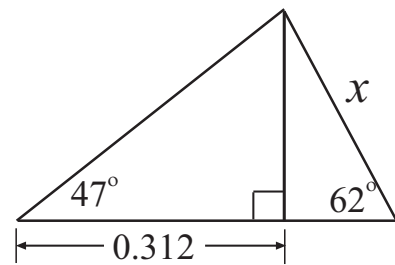
1. A rectangle has sides of length 13.5 in and 5.20 in. Find the area of the rectangle in cm^2 .
(Use 1 in = 2.54 cm.)

2. At the San Andreas fault, the drift of the plates can be as large as 2.0 inches per year.
Convert the value to $\frac{\text{m}}{\text{s}}$.

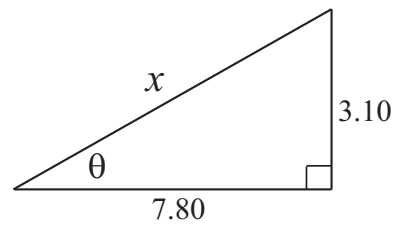
3. For the right triangle shown at the right, find the missing side x .



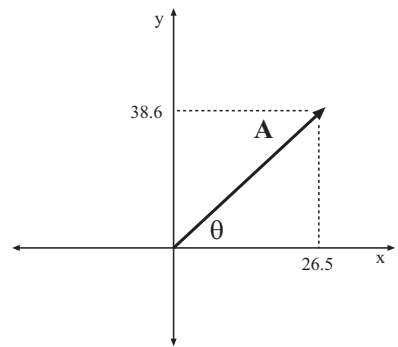
4. Find the missing side x in the diagram shown at the right.



5. For the right triangle shown at the right, find the angle θ and the missing side x .

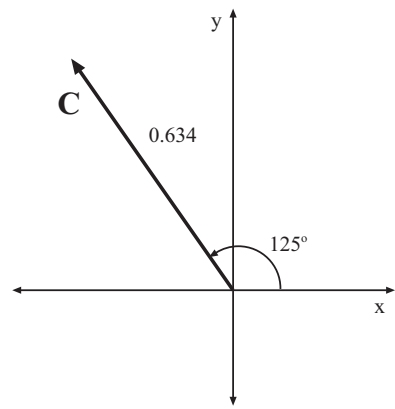


6. The vector \mathbf{A} had x and y components of 26.5 and 38.6 respectively. Find that magnitude of \mathbf{A} and its direction (θ).



7. The vector **C** has magnitude 0.634 and a direction of 125° (counterclockwise from the x axis).

Find the x and y components of **C**



8. Vectors **A** and **B** have the magnitudes and directions shown at the right.

Find the magnitude and direction of $\mathbf{A} + \mathbf{B}$.

