

Quiz 1 (20 pts.)

Name: _____

True or False (1 pt. each)

Answer the following by circling TRUE or FALSE. If the answer is false you must explain why in the space provided for full credit.

1.) T F _____ Pythagoras was a Greek mathematician most known for writing *The Elements*.

2.) T F _____ If $\angle A$ measures 132° then $\angle A$ is an acute angle.

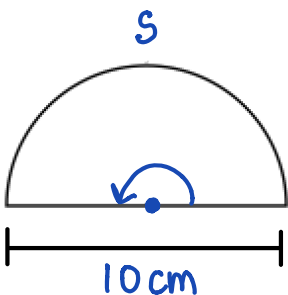
3.) T F _____ If two of the angles in triangle A are equal to two of the angles in triangle B then triangle A and B are similar triangles.

4.) T F _____ A right triangle with legs $a = 3$ cm and $b = 4$ cm has a hypotenuse $c = 25$ cm.

5.) T F _____ An angle α with positive measurement occurs when the terminal side of the angle is rotated counterclockwise.

Short Answer

6.) (3 pts.) Find the arc length of a semi-circle that has a diameter of 10 cm.

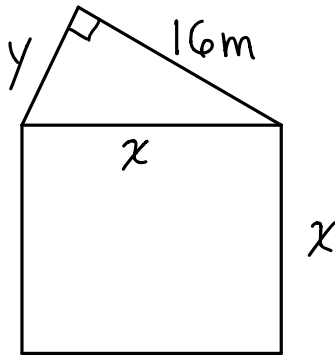


7.) (4 pts.) Convert the following to the appropriate form indicated. (You must show your work for full credit.)

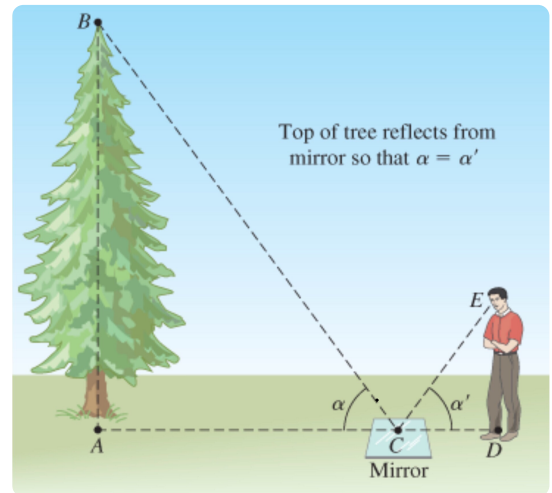
(a) $343^{\circ}25'40''$ to decimal degree form
(Round to three decimal places)

(b) 84.574° to degree-minute-second form
(Round to the nearest second)

8.) (3 pts.) The figure below is comprised of a square with area $400m^2$ and a triangle. Find the missing length y .



9.) (2 pts.) Find the height \overline{AB} of the tree in the figure below if the man is 5.5 ft tall, $\overline{AC} = 24$, and $\overline{CD} = 2.1$.



10.) (3 pts.) Find x and y in the figure below.

