9-5 Finding missing angles

Name: _____   Time› Start: _____   Finish: _____   Total Time = _____

Given the coordinate point, determine the angle formed with the x-axis in the **first** quadrant.
Assume that the angle opens **counterclockwise** (in other words, all angles are to be positive).

1.   (2, 6) $\theta \approx$ _____

2.   (1, 7) $\theta \approx$ _____

3.   (5, -2) $\theta \approx$ _____

4.   (-2, 5) $\theta \approx$ _____

5.   (3, -5) $\theta \approx$ _____

6.   (1, 1) $\theta \approx$ _____

7.   (-2, -5) $\theta \approx$ _____

_____ 8.   A plane is flying due East and is located at the point (3, 5).
It now must turn North and head to the point (5, 12).
How many degrees must it turn?

_____ 9.   A plane is flying due South and is located at the point (-2, -6).
It now must turn a little East and head to the point (-1, -12).
How many degrees must it turn?

_____ 10.   A plane is flying due East and is located at the point (2, 10).
It now turns 22.6199° left towards the North. It travels 13 miles.
Where is it now located?

SAT Questions

_____11.   If the average (arithmetic mean) of a, b, 4, and 10 is 8, what is the value of a + b?

_____12.   A boy planned to buy some chocolate bars at 50 cents each but instead decided to purchase 30-cent chocolate bars. If he originally had enough money to buy 21 of the 50-cent bars, how many of the less expensive ones did he buy?

_____13.   An athlete runs 90 laps in 6 hours. This is the same as how many laps per minute?

A. $\dfrac{1}{15}$

B. $\dfrac{1}{9}$

C. $\dfrac{1}{4}$

D. $\dfrac{1}{2}$

E. 1