

Math 206 - Quiz 8

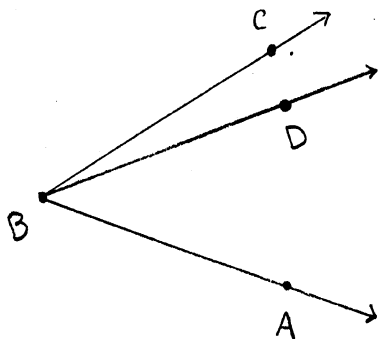
April 16, 2014

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (1.5 points) $\angle ABC$ and $\angle DBC$ are not adjacent angles. The measure of $\angle ABC$ is 68.12° , while the measure of $\angle DBC$ is 15.75° . Find the measure of $\angle ABD$ and write your result in degrees, minutes, and seconds.



$$m(\angle ABD) = 68.12^\circ - 15.75^\circ$$

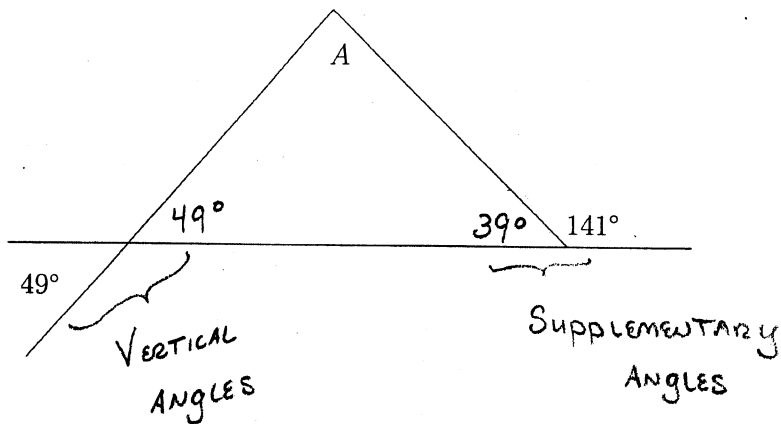
$$= 52.37^\circ$$

$$\frac{0.37 \text{ deg}}{1} = \frac{60 \text{ min}}{1 \text{ deg}} = 22.2'$$

$$\frac{0.2 \text{ min}}{1} = \frac{60 \text{ sec}}{1 \text{ min}} = 12''$$

$$52^\circ 22' 12''$$

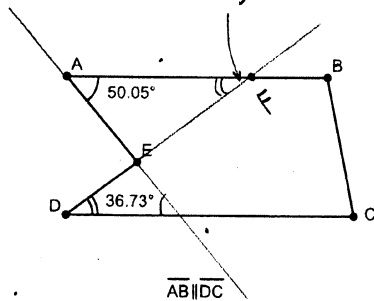
2. (1 point) Find the measure of $\angle A$. Briefly explain your reasoning.



$$m(\angle A) = 180^\circ - 49^\circ - 39^\circ$$

$$= 92^\circ$$

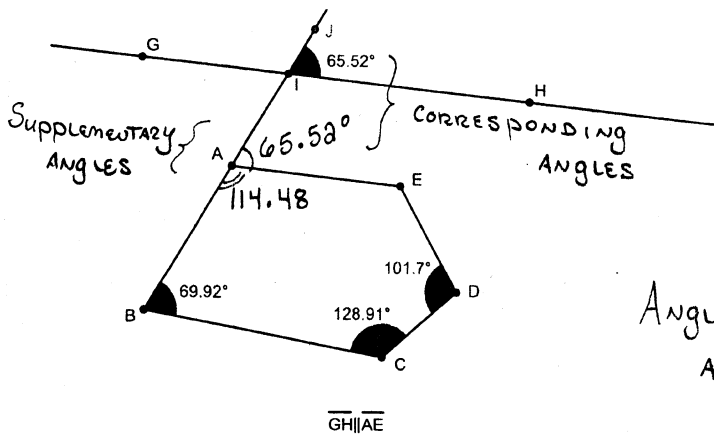
3. (1 point)



$$\begin{aligned}
 m(\angle AEF) &= 180^\circ - (50.05 + 36.73)^\circ \\
 &= 93.22^\circ \\
 \Rightarrow m(\angle AED) &= 180^\circ - 93.22^\circ \\
 &= \boxed{86.78^\circ}
 \end{aligned}$$

Find the measure of Angle AED.

4. (1.5 points)



Find the measure of Angle AED.

Angle measures for
A CONCAVE PENTAGON
ADD UP TO 540°

$$\begin{aligned}
 m(\angle AED) &= 540^\circ - \\
 &= (114.48 + 101.7 + 128.91 + 69.92)^\circ \\
 &= \boxed{124.99^\circ}
 \end{aligned}$$