## Quiz 5

Show all your work algebraically for each. No credit is given without supporting work. There are two sides to this quiz.

1. [3] $(\S 5.5 \# 11)$ Find $\sin v$, given:

2. The following questions refer to the angle depicted on the left between $\mathrm{A}, \mathrm{O}$, and B .
(a) [1] Find the radian measure of the angle AOB.
(b) [1] Find the degree measure of the angle AOB.

(c) $[1](\S 5.1 \# 21)$ Find the length of the arc connecting A to B that passes through quadrant I.
3. Given $\cos 15^{\circ}=\frac{\sqrt{2+\sqrt{3}}}{2}$, find the following:
(a) $[3](\S 5.4 \# 13)$ Find the exact simplified value (not a decimal approximation) of $\sin 15^{\circ}$
(b) $[1]$ ( $\S 5.4 \# 15)$ Find the exact simplified value (not a decimal approximation) of $\tan 15^{\circ}$
