**4-6 and 4-7 Review**

Class Copy

**Find the exact value of each expression, if it exists.**

 **1.** $arcsin^{-1}$ $\left(-\frac{\sqrt{3}}{2}\right)$ **2.** $cos ^{-1}$ $\left(cos \frac{π}{3}\right)$ **3.** tan $\left(-\frac{3π}{2}\right)$ **4.** $sin ^{-1}$ $\left(cos \frac{π}{3}\right)$

**5.** arctan $\left(-\frac{\sqrt{3}}{3}\right)$ **6.** arcsin $\left(-\frac{1}{2}\right)$ **7.** tan $\left(sin ^{-1} 1 - cos ^{-1} \frac{1}{2}\right)$ **8.** sin $\left(arctan -\frac{\sqrt{3}}{3}\right)$

**Solve each triangle. Round to the nearest tenth if necessary.**

40

**9. 10. 11.**

****

**12.**

**Find all solutions for the given triangle, if possible. Round to the nearest tenth if necessary.**

**13.  14.  15. **

**16. A boat leaves a dock and travels north of west averaging 30 knots for 2 hours. The boat then travels directly west averaging 40 knots for 3 hours.**

1. **How many nautical miles is the boat from the dock after 5 hours?**
2. **How many degrees south of east is the dock from the boat’s present position?**



**Find the area of the triangle.**

**17.  18.  19. **

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