| Trigonometry | Name: |
| :--- | :--- |
| Study Guide 18 | Class: |
| Due Date: | Score: |

## No Work $\Leftrightarrow$ No Points

Use Pencil Only $\Leftrightarrow$ Be Neat \& Organized

1. (3 points) Solve the triangle below using the given information. Round all answers to a whole number.

2. 
3. (6 points) Solve the triangle below using the given information. Round all answers to a whole number.

4. $\qquad$
5. (6 points) Solve the triangle below using the given information. Round all answers to a whole number.

6. $\qquad$
7. (3 points) Find the area of the triangle below. Round final answer to a whole number.

8. $\qquad$
9. (3 points) Find the area of the triangle below. Round final answer to a whole number.

10. $\qquad$
11. (5 points) The bearing from point A to point B is $\mathrm{S} 55^{\circ} \mathrm{E}$, and the bearing from point $\mathbf{B}$ to point $\mathbf{C}$ is $\mathbf{N} 35^{\circ} \mathbf{E}$. If a ship sals from $\mathbf{A}$ to $\mathbf{B}$, a distance of 81 km , and then from B to $\mathbf{C}$, a distance of 74 km , how far is it from A to C? Drawing required.
12. 
13. (5 points) A ship travels 14 miles on a bearing of $21^{\circ}$, and then it travels on a bearing of $111^{\circ}$ for 20 miles, how far is it from its starting point? Drawing required.
14. 
15. (4 points) Find the exact value of $\tan \frac{x}{2}$ given that $\sin x=-\frac{4}{5}$, and $\pi<x<\frac{3 \pi}{2}$.
16. $\qquad$
17. (5 points) Graph $y=-2 \sec ^{-1}(x-1)$, and clearly mark relevant information.

18. (5 points) Graph $y=-\frac{1}{2} \csc ^{-1} \frac{x}{2}$, and clearly mark relevant information.

19. (5 points) Graph $y=\pi+\cot ^{-1}(x+2)$, and clearly mark relevant information.

