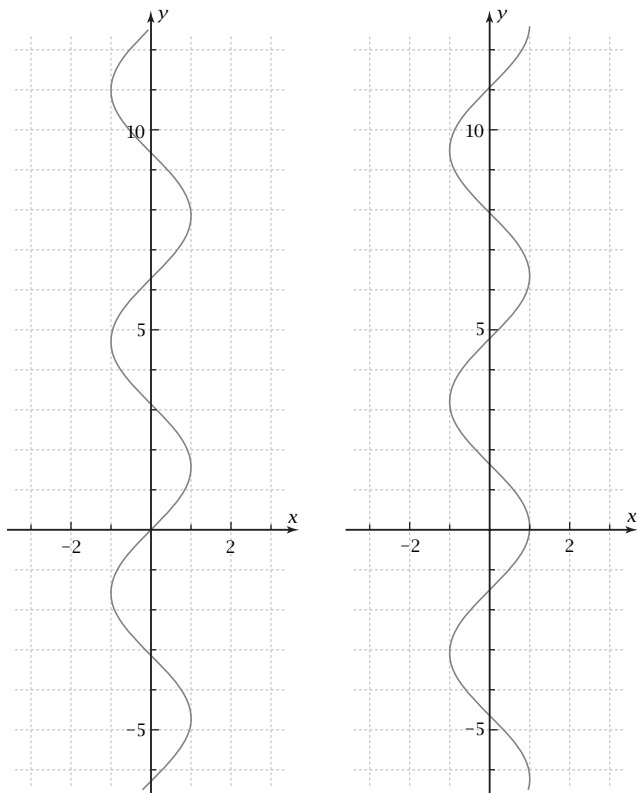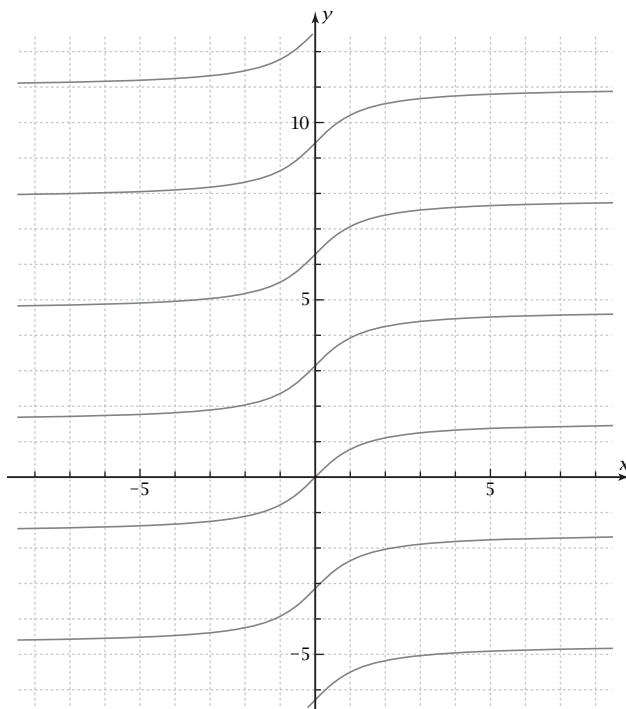Name: _____   Group Members: _____

Exploration 4-6c: Inverse Trigonometric Relation Values

Date: _____

Objective: Calculate multiple values of inverse circular relations and confirm them graphically.

1. Evaluate arcsin 0.8 for all values that show on the graph of $y = \arcsin x$ at the top of this column. Round final answers to the nearest 0.1 unit. Mark the solutions on the graph.

2. Evaluate arccos (−0.3) for all values that show on the graph of $y = \arccos x$ at the column top. Round final answers to the nearest 0.1 unit. Mark the solutions on the graph.

3. Evaluate arctan 4 for all values that show on the graph at the top of this column, of $y = \arctan x$. Round final answers to the nearest 0.1 unit. Mark the solutions on the graph.

4. Darken the **principal branch** of each graph. Circle the point your calculator gives for $\sin^{-1} 0.8$, $\cos^{-1}(−0.3)$, and $\tan^{-1} 4$ on the respective graphs, showing in each case that the value is on the principal branch.

5. What did you learn as a result of doing this Exploration that you did not know before?