Graphing $f(x)=\sin x$ and $f(x)=\cos x$
Complete the following table of values for $f(x)=\sin x$ and $f(x)=\cos x$ then plot each on the grid below.

| $x$ | $0^{\circ}$ | $30^{\circ}$ | $60^{\circ}$ | $90^{\circ}$ | $120^{\circ}$ | $150^{\circ}$ | $180^{\circ}$ | $210^{\circ}$ | $240^{\circ}$ | $270^{\circ}$ | $300^{\circ}$ | $330^{\circ}$ | $360^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| decimal value of <br> $f(x)=\sin x$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| decimal value of <br> $f(x)=\cos x$ |  |  |  |  |  |  |  |  |  |  |  |  |  |



For the sine function:

| What is the period of the graph? | What is the period of the graph? |
| :--- | :--- |
| What is the amplitude of the graph? | What is the amplitude of the graph? |
| What are the $x$ - intercepts? | What are the $x$ - intercepts? |
| What is the $y$ - intercept? | What is the $y$ - intercept? |
| What is the axis of the curve? | What is the axis of the curve? |
| What are the max and min values? | What are the max and min values? |
| What is the domain? What is the range? | What is the domain? What is the range? |
| When is the graph increasing? | When is the graph increasing? |
| When is the graph decreasing? | When is the graph decreasing? |
| Explain why this graph is a function | Explain why this graph is a function |

THINKING: Compare the graphs of $y=\sin \mathrm{x}$ and $\mathrm{y}=\cos \mathrm{x}$. How are they the same? How are they different?

