

5.5 Transformations of Trigonometric Graphs

Use Derive for Windows to quickly graph the functions below. Use a new 2D-plot window for each number. Make a quick sketch of the graphs below each number so you have a record. Label each function so you can tell them apart.

1. Graph $y = \sin(\mathbf{q})$, $y = \sin(\mathbf{q} + \mathbf{p})$, and $y = \sin(\mathbf{q}) + 1$

2. Graph $y = \tan(\mathbf{q})$ and $y = \tan(\mathbf{q} - \mathbf{p}/4)$

3. Graph $y = \csc(\mathbf{q})$

Without graphing, what do you think $y = \csc(\mathbf{q} + \mathbf{p})$ would look like?

Graph it and see if you were right.

4. Graph $y = \sin(\mathbf{q})$

Without graphing, what do you think $y = \sin(\mathbf{q} + \mathbf{p}) - 1$ would look like?

Graph it to see if you were right.

5. Graph $y = \cos(\mathbf{q})$

Without graphing, what do you think $y = \cos(\mathbf{q} - \mathbf{p}/2)$ would look like?

Graph it to see if you were right. Does this graph look familiar? How so?