1. Graph $y = x^3$ and $y = x^{\frac{1}{3}}$ on the same axes. Add the line $y = x$ as a dashed line. (*This illustrates the idea that the graph of the inverse function is the reflection of the graph of the function.*)

2. Graph $y = \sqrt{x}$, $y = \sqrt{x-1}$, and $y = \sqrt{-x}$; use three graphs side-by-side.

3. Graph $y = \sin(x)$ and $y = \cos(x)$ on the same graph over the interval $[-\pi, \pi]$. Label the points $-\pi$, $-\pi/2$, 0, $\pi/2$, π on the x-axis.

4. Graph $y = \cos(2x)$ and $y = 2\cos(x)$ over the interval $[0, 2\pi]$ on the same graph. Label the points 0, $\pi/2$, π, $3\pi/2$ and 2π on the x-axis.

5. Graph $y = \sin(|x|)$ and $y = |\sin(x)|$ over the interval $[-2\pi, 2\pi]$ on adjacent graphs.

6. Graph $y = (0.1)^x$, $y = e^x$, $y = 2e^x$ on the same graph.

7. Graph $y = e^{-|x|}$.

8. Graph $y = \sin(x^2)$ and $y = \sin(1/x)$ on adjacent graphs. *(challenging)*