**1.** Graph $y = x^3$ and $y = x^{\frac{1}{3}}$ on adjacent graphs (i.e. distinct graphs, side-by-side).

**2.** Graph $y = \sqrt{x}$, $y = \sqrt{x-1}$, and $y = \sqrt{-x}$ on adjacent graphs.

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

**4.** Graph $y = \cos(2x)$ and $y = 2\cos(x)$ over the interval $[0, 2\pi]$. Label the points $0$, $\pi/2$, $\pi$, $3\pi/2$ and $2\pi$ on the $x$-axis, $\pm 1$ on the $y$-axis.

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

**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 $y = \sin(1/x)$.                    *(challenging)*