

Let $f(x) = x^3 - 2x$, $g(x) = x + 2$, and $k(x) = 2x$

1. Let $h(x) = k(f(x))$
 - (a) Give the formula for $h(x)$
 - (b) Plot $y = h(x)$ and $y = f(x)$ on the same set of axes
 - (c) How is the graph of $y = h(x)$ related to the graph of $y = f(x)$?
2. Repeat #2 for $h(x) = f(k(x))$
3. Explain how the graphs are related to the graph of $y = f(x)$
 - (a) $y = f(x) + a$
 - (b) $y = f(x + a)$
 - (c) $y = a f(x)$
 - (d) $y = f(a x)$