

For each part, give a sequence of transformations which maps  $y = f(x)$  onto the given graph.

Where reversing the order of the transformations affects the result, give a second sequence of transformations to describe the mapping.

(a)  $y = f(x) \rightarrow y = -f(x) + 2$

(b)  $y = f(x) \rightarrow y = f(x + 2) + 7$

(c)  $y = f(x) \rightarrow y = f(2x - 8)$

(d)  $y = f(x) \rightarrow y = f(4 - x)$

(e)  $y = f(x) \rightarrow y = f\left(\frac{1}{4}x + 5\right)$

(f)  $y = f(x) \rightarrow y = 3f(2x - 4)$