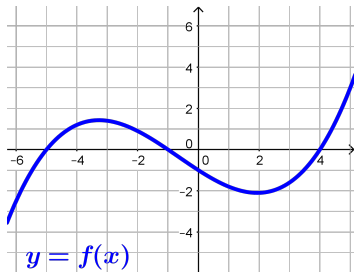


# Vertical Dilation of Graphs

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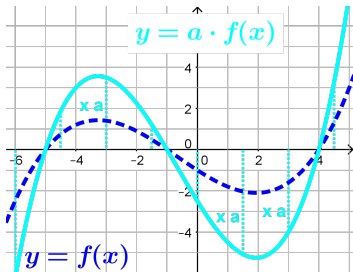
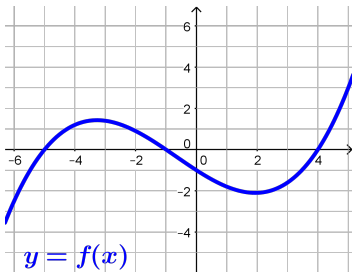
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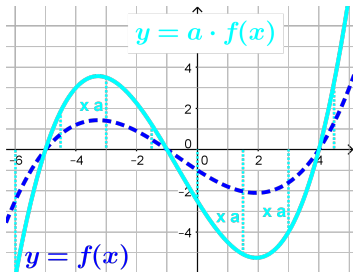
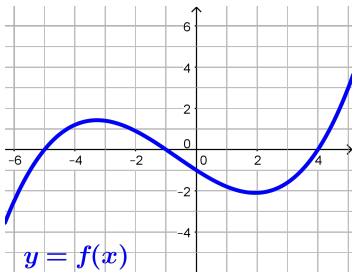
The graph of  $y = a \cdot f(x)$  is the graph of  $y = f(x)$  stretched in the vertical direction by  $a > 0$



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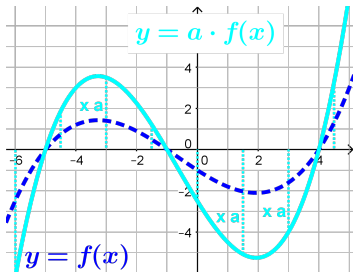
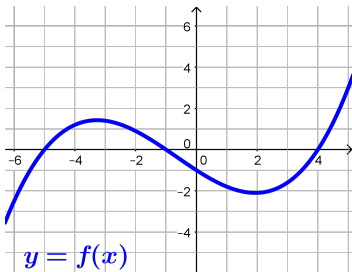
Note: If  $a > 1$  then the graph is vertically ▶ stretched

if  $0 < a < 1$  then the graph is vertically ▶ shrunk

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**Dilate** is used to describe either stretching or shrinking