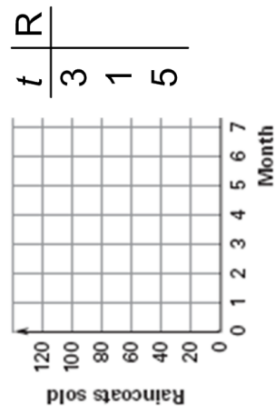


Example 3 Applications of Absolute Value

A raincoat retailer has modeled the number of raincoats sold from Jan. through May by the function $R = -30|t - 3| + 80$. Assume that $t=1$ is January. What is the maximum number of raincoats sold in one month? In what month is the maximum reached?

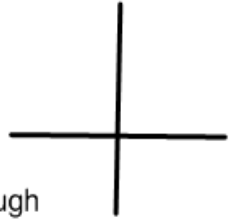


Absolute Value Graphs

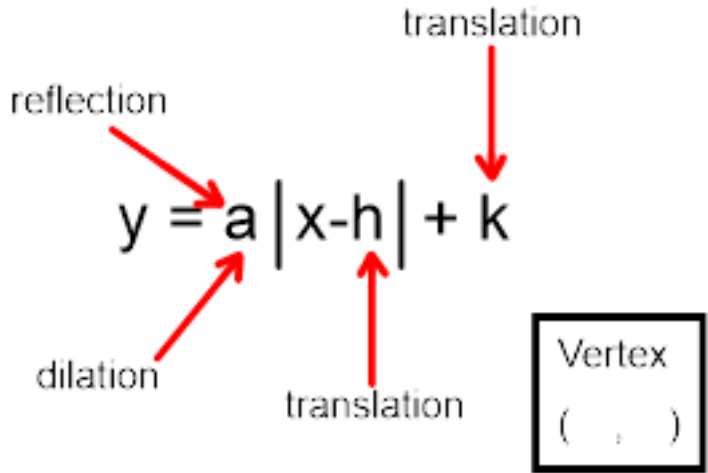
The parent graph of an absolute value function is

with vertex at

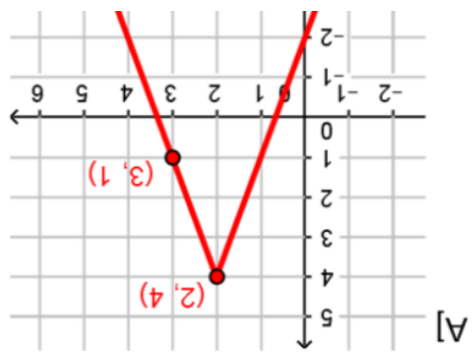
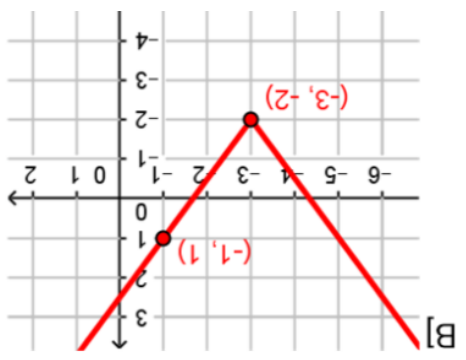
and passes through



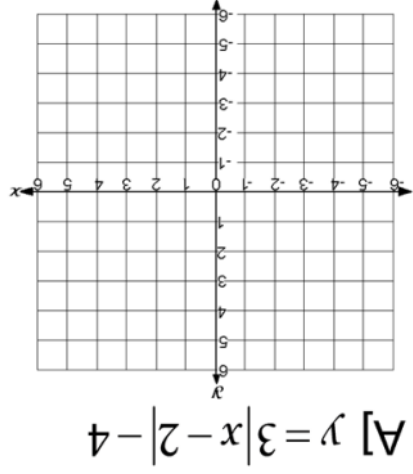
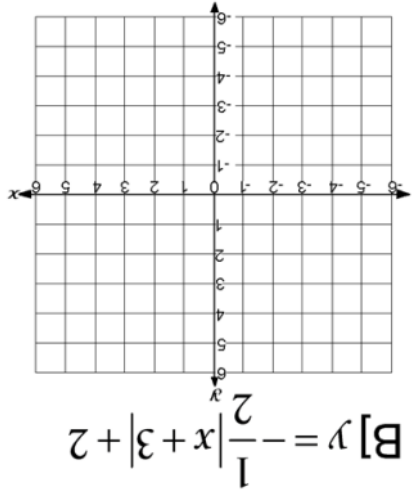
Transformations



Example 2 Write an absolute value equation



Example 1 Graph and describe an absolute value function



Vertex:
Opens:
Slope:

Vertex:
Opens:
Slope: