

Name:

Period:

Date:

DO NOW: Transformations

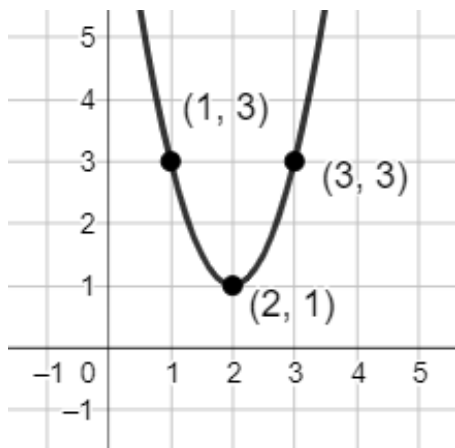
True or False:

_____ 1] $-4f(x - 1) + 2$ has both rigid and non-rigid transformations.

_____ 2] If $f(x) = x^3$, then $-4f(x - 1) + 2$ can be written as $y = -4(x^3 - 1) + 2$.

_____ 3] If $(-4, 3)$ is a point on the graph of $f(x)$, then $(4, 5)$ is a point on the graph of $f(-x) + 2$.

4] Using the graph, write the equation of the function.



5] Write the equation of the absolute value function whose range is $(-\infty, 2]$, has been dilated narrower by a factor of 3, and has not been translated horizontally.

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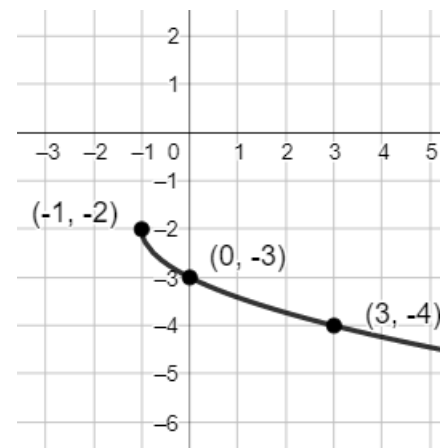
True or False:

_____ 1] $-f(x - 1) + 2$ has both rigid and non-rigid transformations.

_____ 2] If $f(x) = x^2$, then $-4f(x - 1) + 2$ can be written as $y = -4(x - 1)^2 + 2$.

_____ 3] If $(-4, 3)$ is a point on the graph of $f(x)$, then $(-6, -3)$ is a point on the graph of $-f(x + 2)$.

4] Using the graph, write the equation of the function.



5] Write the equation of the parabola whose range is $[1, \infty)$, has been dilated narrower by a factor of 2, and has a vertex with an x-coordinate of 2.

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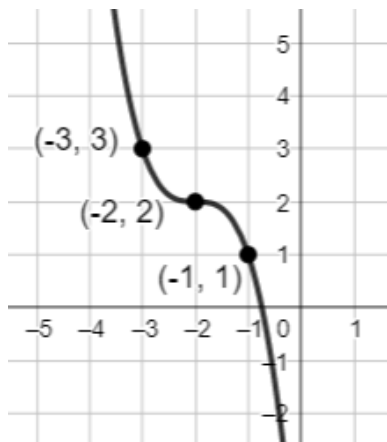
True or False:

_____ 1] $-4f(x)$ has both rigid and non-rigid transformations.

_____ 2] If $f(x) = \sqrt{x}$, then $-4f(x - 1) + 2$ can be written as $y = -4\sqrt{(x - 1) + 2}$.

_____ 3] If $(-4,3)$ is a point on the graph of $f(x)$, then $(4,1)$ is a point on the graph of $f(-x) - 2$.

4] Using the graph, write the equation of the function.



5] Write the equation of the radical function that has a domain of $[-1, \infty)$ and a range of $(-\infty, -2]$. It has not been dilated.

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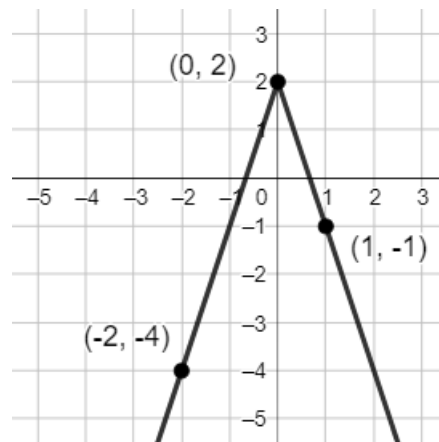
True or False:

_____ 1] $f\left(\frac{1}{4}x\right) + 1$ has both rigid and non-rigid transformations.

_____ 2] If $f(x) = \sqrt[3]{x}$, then $-4f(x - 1) + 2$ can be written as $y = -4\sqrt[3]{x - 1} + 2$.

_____ 3] If $(-4,3)$ is a point on the graph of $f(x)$, then $(-2, -3)$ is a point on the graph of $-f(x - 2)$.

4] Using the graph, write the equation of the function.



5] Write the equation of the cubic function that has been reflected in the x-axis and is centered at $(-2, 2)$. It has not been dilated.