Algebra 1 Test – Chapter 10 – More Functions   Name _____
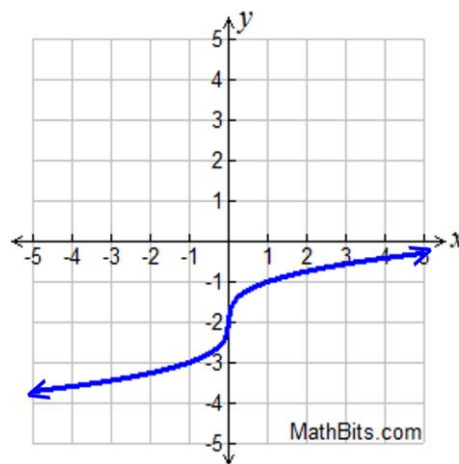
1. If the graph shown at the right is a transformation of
    the parent function $y = \sqrt[3]{x}$, which choice is a possible
    equation for this function?
    Choose:
    ○ $y = \sqrt[3]{x} + 2$
    ○ $y = \sqrt[3]{x} - 2$
    ○ $y = \sqrt[3]{x+2}$
    ○ $y = \sqrt[3]{x-2}$

2. If the graph shown at the right is a
    transformation of the parent
    function $y = \sqrt{x}$, which choice is a possible
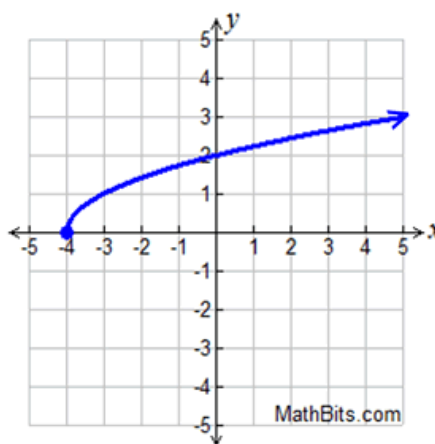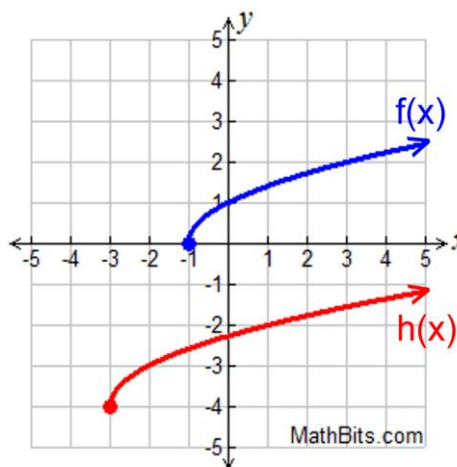   equation for this function?
    Choose:
    ○ $y = \sqrt{x-4}$
    ○ $y = \sqrt{x+4}$
    ○ $y = \sqrt{x} - 4$
    ○ $y = \sqrt{x} + 4$

3. Function $h(x)$ is a transformation of
    function $f(x)$. The function $h(x)$ can be
    expressed as:

    Choose:
    ○ $h(x) = f(x) - 4$
    ○ $h(x) = f(x - 2) - 4$
    ○ $h(x) = f(x + 2) - 4$
    ○ $h(x) = f(x - 3) - 4$

4. Start with the function $f(x) = \sqrt[3]{x}$. Shift 5 units down. Write the equation of the new function

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Consider the 2 functions $f(x) = 4x + 1$ and $g(x) = -3x + 5$.

5. *Find (f+g)(x)* Show your work

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6. *Find (g-f)(x)* Show your work

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7. *Find (fg)(x)* Show your work

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8. Describe how the function $g(x) = \sqrt[3]{x-1} + 4$ is shifted from the original function $f(x) = \sqrt[3]{x}$.

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9. Given functions $f(x) = 2x+3$ and $g(x) = x^2$, find (f o g)(x).

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10. Given functions $f(x) = 2x+3$ and $g(x) = x^2$, find (g o f)(2).

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11. Find the inverse of the function $f(x) = 2x-3$

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BONUS: Of all the topics we covered this year, which one were you best at? _____