Modifying Assessments – Algebra 2

Directions: Modify this low cognitive demand problem to a higher cognitive demand problem. Show the new problem on the right and explain your strategy or strategies you used to modify the problem on the left.

LOW cognitive demand problem	**HIGH cognitive demand problem**
1. **What is the zero of** $f(x) = 2\sqrt{x+2} - 6$ **?** ***x*** **= _____**	

Modifying Assessments – Algebra 2

Directions: Modify this low cognitive demand problem to a higher cognitive demand problem. Show the new problem on the right and explain your strategy or strategies you used to modify the problem on the left.

<table>
<tr><th>LOW cognitive demand problem</th><th>HIGH cognitive demand problem</th></tr>
<tr><td>

3. The graph of a function, g(x), is defined below. Select all intercepts from the choices provided.

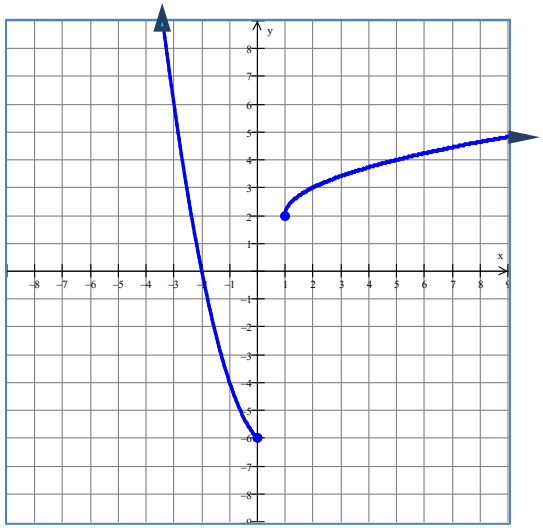
g(x) = $\begin{cases} x^2 - 4x - 5, \{x \mid x \le 4\} \\ 2x - 13, \{x \mid x > 4\} \end{cases}$

(-5, 0)	**(0, -1)**	**(6.5, 0)**
(0, -6)	**(4, -5)**	**(-6, 0)**
(-1, 0)	**(0, 6.5)**	**(0, -5)**

</td><td></td></tr>
</table>

Modifying Assessments – Algebra 2

Directions: Modify this low cognitive demand problem to a higher cognitive demand problem. Show the new problem on the right and explain your strategy or strategies you used to modify the problem on the left.

LOW cognitive demand problem	**HIGH cognitive demand problem**
7. The graph of a function is shown below. What appears to be the domain of this function?  **a)** $\{y \mid y \geq -6\}$ **b)** $\{x \mid x \leq 0\}$ and $\{x \mid x \geq 1\}$ **c)** $\{x \mid x \leq -2\}$ and $\{x \mid x \geq 1\}$ **d)** All real numbers	

Modifying Assessments – Algebra 2

Directions: Modify this low cognitive demand problem to a higher cognitive demand problem. Show the new problem on the right and explain your strategy or strategies you used to modify the problem on the left.

LOW cognitive demand problem	**HIGH cognitive demand problem**
8. Select all of the following functions that have an end behavior that approaches *y* = 2 as *x* approaches positive infinity. $f(x) = \log(x+2)+1$ $g(x) = \frac{2x-5}{x+2}$ $h(x) = \sqrt{x+3}-2$ $j(x) = 2$ $k(x) = \frac{3}{(x+1)^2}+2$	