## Quiz on Ball Bounce III Algebraic Connections

1. Pick one of the following bounces (2-6) to analyze and circle it on the image below. Select it as we did in class [ $\operatorname{Select(L3,L4)}$ ].

2. Get the Quadratic Bubble Baby in the form $\mathbf{A}(\mathbf{x}-\mathbf{H})^{\mathbf{2}}+\mathbf{K}$.
3. Get the regression equation in the form of $\mathbf{A x}^{2}+\mathbf{B x}+\mathbf{C}$.
4. Verify the values of $\mathbf{A}, \mathbf{H}$, and $\mathbf{K}$ using $\mathbf{A}, \mathbf{B}$, and $\mathbf{C}$.
5. Calculate the Percent Error using the equation below, where $\mathbf{O}$ comes from question \#2, and $\mathbf{M}$ comes from question \#3 (all calculated in question \#4). Do this for $\mathbf{A}, \mathbf{H}$, and $\mathbf{K}$.

$$
\frac{|O-M|}{M} * 100 \%
$$

6. Give the graph of the selected bounce with the Dueling Bubble Babies and the Window.
