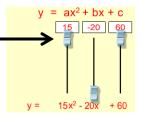
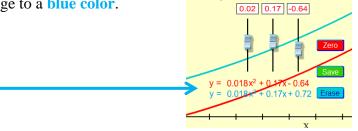
Tips for controls:

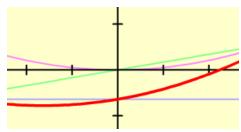
- The sliders can be used to make changes in the coefficients or numbers can be typed into the boxes.
- The sim can be easily used for linear equations by encouraging students to set a=0
- Be aware that students may enter values which move the curve offscreen.
- One equation may be **Saved** to compare with another equation. The saved equation and curve will change to a **blue color**.



 $= ax^2 + bx + c$



• The check boxes provide colored-coded curves which show the curve for a single term in the equation (the other two terms are zero).



Important modeling notes / simplifications:

• The slider ranges are optimized to fit the curve on the screen. Ranges: a (5.05 to -5.05), b (6.31 to -6.31), c (4 to -4).

Suggestions for sim use:

- For tips on using PhET sims with your students see: **Guidelines for Inquiry Contributions** and **Using PhET Sims**
- The simulations have been used successfully with homework, lectures, in-class activities, or lab activities. Use them for introduction to concepts, learning new concepts, reinforcement of concepts, as visual aids for interactive demonstrations, or with in-class clicker questions. To read more, see **Teaching Physics using PhET Simulations**
- For activities and lesson plans written by the PhET team and other teachers, see: <u>Teacher</u> <u>Ideas & Activities</u>