



5. A model rocket was placed on the Lincoln football field and launched. The rocket follows the path $r(x) = -2(x - 2)(x - 12)$ where x = horizontal yards traveled and y = height in feet.
- From what yard line was the rocket launched from? How do you know?
 - From what yard line did the rocket land? How do you know?
 -  What was the maximum height the rocket reached? Explain or show how you found your answer.
6.  A second model rocket was launched from 3 yard line on the the Lincoln football field. The rocket reached its highest point of 48 feet directly above the 7 yard line.
- What yard line did the rocket land on? Show or explain how you know.
 - Write the quadratic function for this rocket in FACTORED FORM: $y = \#(x - \#)(x - \#)$. Show how you found the dilation factor.