Name:_____ Date:_____

Predicting Values
Team Response Sheet

Instructions:

In your student teams, work together to respond to the following questions about the Profits per Explosion graph. Remember to use your team roles to keep your group on task.

1. What do you notice about where the points are and where the line is?

2. Recall from Algebra that every line can be represented by an equation in the form $y = mx + b$. In this case, the equation of the regression line is $y = 3.2536x + 154.3654$. What do the x- and y-values represent in this equation?

3. According to the equation, what is the slope of this line? What does the slope mean in relation to the number of explosions?

4. When the number of explosions (x-value) is zero, what is the profit (y-value)? How do you know? What does this mean?

5. If you wanted to know the profit for the point that lies the closest to the line, what would the equation be? Write the equation and solve it.

6. What was the actual profit for the point that lies closest to the line?

7. What if Michael Bay made a movie that had 325 explosions? What would his predicted profit be? Show how you arrived at the solution.