**Create Advertisements for Toy Rockets or Baseball Simulators.**

**Toy Rockets**

**Joe:** “I designed some model rocket toys! I need to come up with advertisements for them! “

**Ana:** “Well, what do you want your advertisements to highlight?”

**Joe:** “I’m not quite sure, but I definitely do want the customers to know how high the rockets can reach, and how long they will stay in the air for! I feel like simply telling them the equations for the rockets’ paths is not enticing enough.”

**Ana:** “Hmmm… what are the equations?”

**Joe:** “Rocket Model Andromeda’s path can be represented by the equation

h = -16t2 + 34t + 2 , while Rocket Model Odyssey’s uses equation h = -16t2 + 48t.”

**Ana:** “What are h and t?!”

**Joe:** “h is the height in feet, and t is the time in seconds. I also want the customers to know that this one rocket model comes elevated on a stand already, since they will not see a picture in the ad!”

*Help Joe design some advertising statements to reach his needs.*



**Baseball Simulators**

**Tom:** “I designed a set of machines that emulate the path of a baseball

being hit into the outfield, to help outfielders with their catching practice.

I need to create an advertisement for the package!“

**Eva:** “Well, what do you want your advertisement to highlight?”

**Tom:** “I’m not quite sure, but I definitely do want the customers to know how high the baseballs can reach, and how long they will stay in the air, assuming there is no wind! I feel like simply telling them the equations for the baseball’ paths is not enticing enough.”

**Eva:** “Hmmm… what are the equations?”

**Tom:** “The path of the ball in Model A can be represented by the equation

h = -16t2 + 64t + 4 , while that in Model B uses equation h = -.0012x2 + .602x + 3.”

**Eva:** “What are h, t, and x?!”

**Tom:** “h is the height in feet, t is the time in seconds, and x is the horizontal distance in feet from the place of launch. I also want the customers to know which model is taller, since they will not see a picture in the ad!”

**Eva:** “It seems like we can provide information about the maximum height of both models! For one model, we should be able to tell the customers how long to expect the ball to be in the air for, and for the other, we should be able to tell the customers some information about how far away the ball will land, which should help them figure out where to stand! This seems like a great product to help outfielders with their catching skills!”

*Help Tom design some advertising statements to reach his needs.*

**We chose:**  Baseball Simulators Toy Rockets

(circle one)

**Scoring Rubric**

**Mini Project (20 points, weighed twice)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **4 points** | **3 points** | **2 points** | **1 point** |
| **Important Aspects**  **(First Model)** | The significance of all three aspects [the vertex, y-intercept, and x-intercept(s)] are mentioned. | The significance of two of the three aspects [the vertex, y-intercept, and x-intercept(s)] are mentioned. | The significance of one of the three aspects [the vertex, y-intercept, and x-intercept(s)] is mentioned. | The significance of the vertex, y-intercept, and x-intercept(s) are not mentioned at all = 0 points. |
| **Important Aspects**  **(Second Model)** | The significance of all three aspects [the vertex, y-intercept, and x-intercept(s)] are mentioned. | The significance of two of the three aspects [the vertex, y-intercept, and x-intercept(s)] are mentioned. | The significance of one of the three aspects [the vertex, y-intercept, and x-intercept(s)] is mentioned. | The significance of the vertex, y-intercept, and x-intercept(s) are not mentioned at all = 0 points. |
| **Calculations** | 100% of calculations are correct. | 75% ≤ correct < 100% | 50% ≤ correct < 75% | Less than 50% of calculations are correct.  No calculations = 0 points |
| **Creativity** | Advertisements are unique, creative, and intriguing. | Advertisements are creative & intriguing, but not unique. | Advertisements are somewhat creative & intriguing. | Advertisements are unclear.  No advertisements = 0 points |
| **Neatness** | All work and final product are neatly organized. | Most work and final product are neatly organized. | Some work and final product are neatly organized. | Work is difficult to follow and/or final product is messy. |

***Comments*:**

**Total: \_\_\_\_\_\_\_\_\_ 20**