

Name:

Date:

Class:

Judgement with Jelly Beans Activity Handout



Your Task: Jelly Belly Candy Company needs you and your partner to create a linear approximation model so they can have a precise prediction of the quantity of jelly beans it will take their machines to fill up a tube with a specific height.

Jelly Belly's Expectations: To be successful, Jelly Belly is requiring that your model can accurately predict the number of jelly beans within a plus/minus range of three jelly beans for any given

height tube.

From the previous lesson, *Mathematical Modeling - Linear Approximations*, we talked about the following steps to model an approximately linear situation:

1. **Collect data** into an organized table.
2. **Graph a scatter plot** of your data with proper labels on the axes.
3. **Draw in a line-of-fit** using a ruler that best represents your data and record two known points that your line-of-fit passes through.
4. **Create a model**, in this case a slope-intercept form equation using your two data points.
5. **Define the variables** in the model so the meaning is completely understood.
6. **Evaluate** using the model to make a prediction.

1. Data collection.

Tube Height (in cm)	Number of Jelly Beans

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2. Graph a scatter plot.



3. Draw in a line-of-fit.

Point 1 is (,)

Point 2 is (,)

4. Create a model.

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5. Define the variables in your model.

The variable x represents _____.

The variable y represents _____.

6. Evaluate using your model.

The Jelly Belly Candy Company wants to know “How many Jelly Beans will it take to fill up a tube with a height of 30.48 cm?”