

Name: _____ Hour: _____

How many rubber bands does Barbie need?

Barbie™



How many rubber bands should we attach to Barbie so that she has the absolute most fun without smashing her head if she were to jump from the balcony in the front foyer of the school (5.3 meters above the ground)? Here's the catch: You may only use 7 rubberbands to figure this out.

Complete the table:

# Rubber bands	0	1	2	3	4	5	6	7
Distance traveled								

Use your group's data to complete the following:

1. Identify the explanatory and response variables.
2. How many variables do we have? Are they categorical or quantitative?
3. Use the applet at www.stapplet.com to make a scatterplot. Draw below.

4. Describe the relationship displayed in the scatterplot.

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Displaying Relationships: Scatterplots

Important Ideas:

Check Your Understanding:

1. A study was conducted to see if the number of minutes of screen time is a good predictor of the popularity rank for Star Wars characters? Here are the data from recent study that ranked the 14 most popular characters.

Character	Rank	Screen time (min)
Darth Vader	1	150
Hans Solo	2	261
Luke Skywalker	3	282
Princess Leia	4	163
Anakin Skywalker	5	316
Obi-Wan Kenobi	6	294
R2-D2	7	410

Character	Rank	Screen time (min)
Chewbacca	8	260
Yoda	9	134
C-3PO	10	359
Rey	11	100
Padme' Amidala	12	210
Emperor Palpatine	13	107
Boba Fett	14	59

- a. Identify the explanatory and response variables. Explain your reasoning.
- b. Make a scatterplot to display the relationship between screen time and rank for these Star Wars characters.
- c. Describe the relationship shown in the scatterplot.