

Names: _____

Core: _____

Balloons

You are going to be working in a group of three or four people. You will be entering your data into L1 and L2.

- 1) Blow up your balloon. Measure the circumference in centimeters and record it in L1. You may want to make a mark on your balloon so that you are measuring in the same place each time. You may also want to start with smaller circumferences and work your way up so that your balloon does not get stretched out.
- 2) Have the stopwatch ready to go and have whoever is holding the balloon release it. Time how long it takes in seconds for the balloon to deflate and hit the ground. Record the time it took for the balloon to deflate and hit the ground in L2. Be sure to release the balloon from the same height each time to keep your data consistent. Also – do not “throw” the balloon – just release it and let it do its thing.
- 3) Repeat this process 20 times, using a different circumference each time.
- 4) Make a scatter plot of your data showing the relationship between the circumference of the balloon and the time it takes to deflate.

TRY #	CIRCUMFERENCE	TIME	TRY #	CIRCUMFERENCE	TIME
1			11		
2			12		
3			13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		

Questions:

- 1) Is there a relationship between the circumference and the time to deflate? Please explain.
- 2) What other variables affected the results of this experiment?
- 3) Sketch a picture of your scatter plot on the back and mark in the line of best fit. Find the equation for this line.