

Bounce Lab

Purpose: The purpose was to see how high the ball bounced back up after you dropped it, with two different balls and different drop heights.

Materials: Two different balls, a tape measure, tape, a pen/pencil, and a piece of paper (to record).

Procedure: See QSL Lab manual pg. 10-13.

Data:

Tabel 1: Type of ball: Kids rubber ball

Release Height (cm)	Rebound Height (cm)	Rebound + Release
50 cm	20 cm	0.40
60 cm	32 cm	0.53
70 cm	41 cm	0.59
80 cm	50 cm	0.63
90 cm	54 cm	0.60
100 cm	59 cm	0.59
Average -----	-----	0.56

Tabel 2: Type of ball: Volleyball

Release Height (cm)	Rebound Height (cm)	Rebound + Release
50 cm	41 cm	0.82
60 cm	49 cm	0.82
70 cm	56 cm	0.71
80 cm	60 cm	0.75
90 cm	66 cm	0.73
100 cm	70 cm	0.70
Average -----	-----	0.76

Analysis:

1. A variable that might affect how high it bounces would be dropping it from different heights such as buildings. Or you could use the same ball but from different years.
2. My graph tell where the ball bounced back up to after you dropped it from different heights. It also shows the two different balls I used.
3. I predict that if the drop was 87 cm it would rebound to around 53 cm for the blue ball and 56 cm for the purple ball. If they rebounded to 52 cm I predict that the drop height would be about 23 cm for the blue ball and 43 cm for the purple ball.
4. I predict that the rebound height of the balls if its dropped from 38 cm would be around 11 cm for the blue and about 24 cm for the purple.
5. The release height is related to the rebound height by showing that the heigher the drop height is the heigher the rebound height is.
6. The pattern that appears is that they are all decimals one and two they are all in one general area of number like for the blue ball its between 0.40 and 0.60 and for the purple its between 0.70 to 0.85.
7. The second ball's rebound height was higher than the first ones, but it was bigger and heavier.