**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Assignment 1-1**

2-36 DeShawna and her team gathered data for their ball and recorded it in the table shown at the right.

|  |  |
| --- | --- |
| Drop Height in cm. | Rebound Height in cm. |
| 150 | 124 |
| 70 | 58.5 |
| 120 | 99.5 |
| 100 | 82.6 |
| 110 | 92 |
| 40 | 33.4 |

1. What is the rebound ratio for the ball?
2. Predict how high DeShawna’s ball will rebound if it is dropped from 3 meters?
3. How high would you need to release the ball from if you wanted it to rebound to a height of 60 cm.?
4. How high will the ball rebound if dropped from 200 meters up the Empire State Building?
5. How high would the ball rebound after the second bounce if dropped from the Empire State Building? After the third bounce?

2-37 A ball dropped from 2 meters should rebound to a height of approximately 111 centimeters.

1. How high would it rebound if dropped from 10 feet?
2. How high would it rebound after the twelfth bounce from a height of 10 feet?
3. How high would it rebound after the nth bounce?

2-7 Solve the system algebraically.

1. x + 3 = y b. x – y = -5

x = 3y -5 y = -2x – 4

2-8 For the function f(x) = 6/(2x – 3), find the value of each expression.

a. f(1) b. f(0) c. f(-3) d. f(1.5)

1. If f(x) = 4, what is x?

**Review**

Graph each linear equation:

a. y =  b. y + 4 = x – 3

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| --- | --- | --- | --- |
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