Distance Sampling Activities

**Activity 1:**  As a group, we will go outside to practice estimating distances.

Step 1 - Your instructor will pick an object that you will need to guess the distance to. We will repeat this process 7 times. Write each of your 7 guesses in the top row of boxes below.

Step 2 – After you make each guess, the instructor will tell everyone the actual (true) distance. Write these distances in the second row of boxes.

Step 3 – Once we return inside, create two “vector” objects in *R* to store your estimates and the actual values. Calculate the percent difference between each of your guesses and the actual (true values). %Difference = (ObservedValue – ActualValue)/ActualValue X 100

Guesses <-

Actual <-

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Estimated Distance |  |  |  |  |  |  |  |
| Actual  Distance |  |  |  |  |  |  |  |
| Percent Difference |  |  |  |  |  |  |  |

**Activity 2:**  You will walk a transect. Record the color and distance of any golf tees you find.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Observation**  **Number** | **Color** | **Distance** |  | **Observation**  **Number** | **Color** | **Distance** |
| 1 |  |  |  | 21 |  |  |
| 2 |  |  |  | 22 |  |  |
| 3 |  |  |  | 23 |  |  |
| 4 |  |  |  | 24 |  |  |
| 5 |  |  |  | 25 |  |  |
| 6 |  |  |  | 26 |  |  |
| 7 |  |  |  | 27 |  |  |
| 8 |  |  |  | 28 |  |  |
| 9 |  |  |  | 29 |  |  |
| 10 |  |  |  | 30 |  |  |
| 11 |  |  |  | 31 |  |  |
| 12 |  |  |  | 32 |  |  |
| 13 |  |  |  | 33 |  |  |
| 14 |  |  |  | 34 |  |  |
| 15 |  |  |  | 35 |  |  |
| 16 |  |  |  | 36 |  |  |
| 17 |  |  |  | 37 |  |  |
| 18 |  |  |  | 38 |  |  |
| 19 |  |  |  | 39 |  |  |
| 20 |  |  |  | 40 |  |  |