

DEAD PARROT LAB

Name _____

This is NOT a write-up lab!

PARTNERS _____, _____, _____

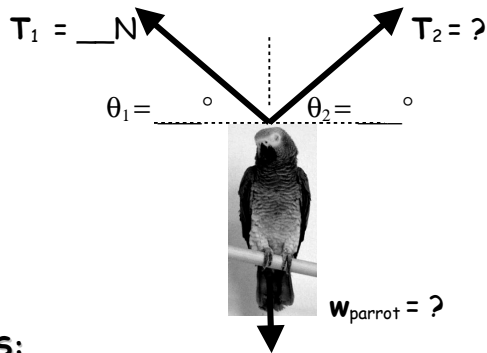
INTRODUCTION:

When two or more forces act on a body and the body does not accelerate (at rest or constant speed), the body is said to be in **equilibrium**. Since there must be a state of balance between forces in an equilibrium situation, we can resolve each force into its x- and y- components and set the sum of these forces in each dimension equal to zero. This allows one to solve for one or more unknowns (such as the weight of the parrot!).

OBJECTIVE:

To investigate statics situations and apply vector addition techniques to equilibrium problems.

DIAGRAM:



PROCEDURES:

1. Analyze the situation and record the values of force T_1 , θ_1 , and θ_2 . Don't round off values or you'll be sorry...
2. Set up the x-equilibrium condition and use the information you know to calculate the value for T_2 .
3. Set up the y-equilibrium condition to solve for the weight of the parrot.
4. Determine the mass of the parrot in kilograms.
5. Convert the mass to grams and compare this to the known value.

DATA & ANALYSIS:

Show all work necessary to solve the problem for the mass of the parrot.

CONCLUSIONS:

I believe the mass of the parrot was _____ grams. The actual mass of the parrot was _____ grams. My percent error was _____% and may be attributed to:

1. _____
2. _____
3. _____