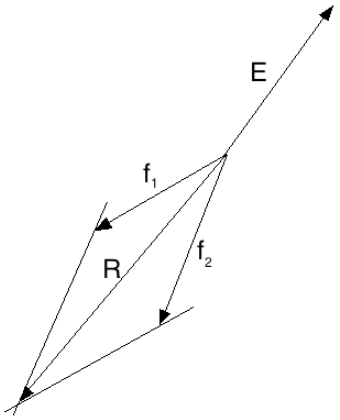
Lab 6, Vectors!

Print Name _____ Per____
Purpose: To find Forces, Resultants, Equilibrants.
Each person does one diagram with help from the others.

To change grams of mass into newtons of force:

f = ma, so n = mg, hence **1 g = 0.01n**

1. Clip a paper into the force board.
2. Mount the spring balances.
3. Dot the center and draw the lines of forces.
4. Remove paper and use a ruler to extend the three lines.
5. Select a scale for your paper.
6. Place the arrow heads!
7. Choose any two vectors for f_1 and f_2.
8. Third vector is the Equilibrant.
9. Draw the parallelogram for f_1 and f_2.
10. Draw the diagonal for the Resultant & place the arrow head.
11. Compare the constructed Resultant and the Equilibrant.
12. Repeat the above for each person using different angles and forces.



On the back, solve these two problems both graphically and trigonometrically: Show your Hup, Two, Three, Four.

13. 50 m/s southward and 40 m/s westward.
14. 10 n eastward and 20 n northward.
14. Critique.