

GRAVITY WORKSHEET

It's time to think about our work!



Dmytr0; CC-SA

1. Explain why varying the second mass had the same effect on the force as varying the first mass.
2. What is the relationship between Mass and force? What happens to the force if you double the mass of the blue object? What happens to the force if you then triple the red object's masses?
3. What is the relationship between distance and the force of gravity? What happens if you triple the distance between the objects? and if you half the distance between them?

4. Combine your proportions between Mass 1 (m_1), Mass 2 (m_2) distance (r) into a single proportion to the Force of gravity (F_g).



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5. Does your lab data for m_1 , m_2 , and r does equal F_g ? Also work out your units, do they equal a unit of force?

6. Determine the gravitational constant (G) that will satisfy your units

$G =$ _____

7. Look on the internet the Universal Law of gravitation formula and the value of the gravitational constant (G). Write them down and compare them with the model you have developed.