**Year 10 Physics Video Lesson 2: Gravity, Mass and Weight**

**Questions**

1. Define mass and give the unit:
2. Define weight and give the unit:
3. What is the magnitude (size) of Earth’s gravitational field strength?
4. Where would an object fall fastest, Earth, Jupiter or the Moon? Explain your answer.
5. What equation links mass, weight and gravitational field strength?
6. What is the weight of a 14.3 kg dog on Earth? (Earth’s gravitational field strength = 9.8N/kg). Show your working-out and write the units for your answer.
7. A cat weighs 78.4N on Earth. What is its mass? Give 2 answers, one in kg and one in g. Show your working-out and write the units for both of your answers.
8. Complete this sentence: Doubling the mass doubles the weight, so mass and weight are d\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ p\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
9. What happens to the strength of gravity as you move further away from a planet?
10. A rock on the Moon weighs 340N. Calculate its weight on Earth. (Moon’s gravitational field strength = 1.66N/kg). Show your working-out and write the units for your answer.