

Physics I
Weight and Mass Problems 1

Name:

Block:

Date:

What is the weight on Earth of the following masses?

1. 25 kg

2. 2.35×10^5 kg

3. 9.82×10^{-2} kg

4. 2000 mg

5. 8.75×10^4 μ g

6. 7548 cg

7. 2.496×10^{12} ng

8. 2384 dg

Calculate the mass in kg of the objects whose weight on the Earth are as follows:

1. 9800N

2. 24.5 N

3. 9.8×10^{-5} N

4. 51352000 N

5. 60760 N

6. The mass of an object is 356 kg. Its weight on the Moon will be six times less than on the Earth. What is the weight of this object on the Moon?

7. An object has a mass of 5785 kg and a weight of 1133386 N on an imaginary planet. What is the gravitational acceleration constant on this imaginary Planet?

8. Which is heavier, 156 kg at sea level or 156 kg on top of a high mountain? Explain.

9. What is the mass of a rock that weighs 0.85652 N on the Earth?

10. What is the weight on the Earth of an object that has a mass of 7.9×10^6 kg?