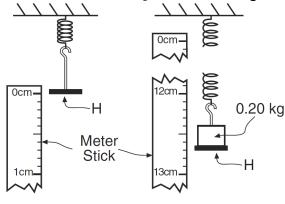
01a - Measurements and Mathematics

- 1. The mass of a high school football player is approximately
 - A) 10^{0} kg
- B) 10^{1} kg
- C) 10^2 kg
- D) 10^{3} kg
- 2. What is the approximate mass of a pencil?

 - A) 5.0×10^{-3} kg B) 5.0×10^{-1} kg C) 5.0×10^{0} kg D) 5.0×10^{1} kg
- 3. The thickness of one page of this test booklet is closest to
 - A) 10⁻⁴ m
- B) 10^{-2} m
- C) 10^{0} m
- D) 10^{2} m
- 4. What is the displacement of the mass hanger (H) shown in the diagram after a 0.20-kilogram mass is loaded on it? [Assume the hanger is at rest in both positions.]



Unloaded

Loaded

- A) 12.30 cm
- B) 12.50 cm
- C) 12.70 cm
- D) 13.30 cm
- 5. The maximum time allowed for the completion of this examination is approximately
 - A) 10^2 s
- B) 10^3 s
- C) $10^4 \, \text{s}$
- D) 10^{5} s
- 6. Which object weighs approximately 1 Newton?
 - A) dime

B) paper clip

C) physics student

- D) golf ball
- 7. The mass of a physics textbook is closest to
 - A) $10^3 \, \text{kg}$
- B) $10^{1} \, \text{kg}$
- C) $10^{0} \, \text{kg}$
- D) $10^{-2} \, \text{kg}$
- 8. The height of a doorknob above the floor is closest to
 - A) 1 centimeter
- B) 1 meter
- C) 1 millimeter
- D) 1 kilometer
- 9. The area of a page in a test booklet is closest to
 - A) 0.6 cm^2
- B) 6 cm²
- C) 60 cm²
- D) 600 cm²
- 10. A reasonable height for a chalk tray above the floor is closest to
 - A) 1 cm
- B) 10 cm
- C) 100 cm
- D) 1,000 cm
- 11. The height of an average adult is approximately 1.75
 - A) cm
- B) m
- C) mm
- D) km

- 12. The thickness of a pencil is closest to
 - A) 1 mm
- B) 1 cm
- C) 1 m
- D) 1 km

13. What is the approximate diameter of a dinner plate?			
A) 0.0025 m	B) 0.025 m	C) 0.25 m	D) 2.5 m
 14. The weight of an apple is closest to			
A) 10^{-2} N	B) 10^{0}N	C) 10^2 N	D) 10 ⁴ N
 15. The length of a high school physics classroom is probably closest to			
A) 10^{-2} m	B) 10 ⁻¹ m	C) 10^1 m	D) 10^4 m
 16. The thickness of a dollar bill is closest to			
A) 10^{-4} m	B) 10 ⁻² m	C) 10^{-1} m	D) 10^{1} m
 17. The approximate mass of a nickel is			
A) 0.0005 kg	B) 0.005 kg	C) 0.5 kg	D) 5 kg
18. Which measurement of an average classroom door is closest to 1 meter?			
A) thickness	B) width	C) height	D) surface area
19. Which is the most likely mass of a high school student?			
A) 1 kg	B) 5 kg	C) 60 kg	D) 250 kg
20. The diameter of an automobile tire is closest to			
A) $10^{-2} \mathrm{m}$	B) 10^0m	C) 10^1m	D) $10^2 \mathrm{m}$