



Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

- 1 What is the **approximate width** of a person's **little finger**?
- A 1 m
  - B 0.1 m
  - C 0.01 m
  - D 0.001 m



- 2 The energy **equivalent** of  $5.0 \times 10^{-3}$  **kilogram** is
- A  $8.0 \times 10^5 \text{ J}$
  - B  $1.5 \times 10^6 \text{ J}$
  - C  $4.5 \times 10^{14} \text{ J}$
  - D  $3.0 \times 10^{19} \text{ J}$

- 3 A **45.0-kilogram boy** is riding a **15.0-kilogram bicycle** with a speed of **8.00 meters per second**. What is the **combined kinetic energy** of the boy and the bicycle?



- 4 The **diameter** of a **United States penny** is closest to
- A  $10^0 \text{ m}$
  - B  $10^{-1} \text{ m}$
  - C  $10^{-2} \text{ m}$
  - D  $10^{-3} \text{ m}$



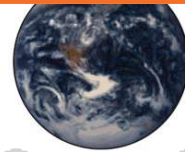
## PREVIEW

7 Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

- B  $\frac{\text{W}}{\text{m}}$       D  $\frac{\text{kg} \cdot \text{m}}{\text{s}}$

- 9 A **95-kilogram** student climbs **4.0 meters** up a rope in **3.0 seconds**. What is the **power output** of the student?
- A  $1.3 \times 10^2 \text{ W}$
  - B  $3.8 \times 10^2 \text{ W}$
  - C  $1.2 \times 10^3 \text{ W}$
  - D  $3.7 \times 10^3 \text{ W}$

- A 50 N  
B 100 N  
C 400 N  
D 800 N



- 10 What is the **resistance** at  $20^\circ\text{C}$  of a **1.50-meter long** aluminum conductor that has a **cross-sectional area** of  $1.13 \times 10^{-6} \text{ meter}^2$ ?
- A  $1.87 \times 10^{-3} \Omega$
  - B  $2.28 \times 10^{-2} \Omega$
  - C  $3.74 \times 10^{-2} \Omega$
  - D  $1.33 \times 10^6 \Omega$



## ANSWER KEY

What is the **approximate width** of a person's **little finger**?

- A 1 m
- B 0.1 m
- C 0.01 m
- D 0.001 m



(C)

The energy **equivalent** of  $5.0 \times 10^{-3}$  **kilogram** is

- A  $8.0 \times 10^5 \text{ J}$
- B  $1.5 \times 10^6 \text{ J}$
- C  $4.5 \times 10^{14} \text{ J}$
- D  $3.0 \times 10^{19} \text{ J}$

(C)

A **45.0-kilogram boy** is riding a **15.0-kilogram bicycle** with a speed of **8.00 meters per second**. What is the **combined kinetic energy** of the boy and the bicycle?

- A 240 J
- B 480 J
- C 1440 J
- D 1920 J



(d)

The **diameter** of a **United States penny** is closest to

- A  $10^0 \text{ m}$
- B  $10^{-1} \text{ m}$
- C  $10^{-2} \text{ m}$
- D  $10^{-3} \text{ m}$



(C)



## PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

B  $\frac{v}{m}$

D  $\frac{\text{kg} \cdot \text{m}}{\text{s}}$

- B 100 N
- C 400 N
- D 800 N



A **95-kilogram student** climbs **4.0 meters** up a rope in **3.0 seconds**. What is the **power output** of the student?

- A  $1.3 \times 10^2 \text{ W}$
- B  $3.8 \times 10^2 \text{ W}$
- C  $1.2 \times 10^3 \text{ W}$
- D  $3.7 \times 10^3 \text{ W}$

(C)

What is the **resistance** at  $20^\circ\text{C}$  of a **1.50-meter long** aluminum conductor that has a **cross-sectional area** of  $1.13 \times 10^{-6} \text{ meter}^2$ ?

- A  $1.87 \times 10^{-3} \Omega$
- B  $2.28 \times 10^{-2} \Omega$
- C  $3.74 \times 10^{-2} \Omega$
- D  $1.33 \times 10^6 \Omega$

(C)