

Physics Principles and Problems 2009

Section 1.1 : Mathematics and Physics

Self-Check Quizzes

1

Which SI unit is used to measure temperature?

[Need a Hint?](#)

- ☐ A) ampere
- ☐ B) candela
- ☐ C) kelvin
- ☐ D) meter

2

_____ is the method of treating units as an algebraic quantity which can be cancelled.

[Need a Hint?](#)

- ☐ A) Dimensional analysis
- ☐ B) Physics
- ☐ C) Scientific methods
- ☐ D) Significant digits

3

What is the number of significant digits in 2.25 km?

[Need a Hint?](#)

- ☐ A) 0
- ☐ B) 1
- ☐ C) 2
- ☐ D) 3

4

A paper airplane could be considered a scientific _____.

[Need a Hint?](#)

- ☐ law
- A)**
- ☐ method
- B)**
- ☐ model
- C)**
- ☐ theory
- D)**

5

Which is closely aligned with physics?

[Need a Hint?](#)

- ☐ biology
- A)**
- ☐ history
- B)**
- ☐ mathematics
- C)**
- ☐ zoology
- D)**

Physics Principles and Problems 2009

Section 1.2 : Measurement

Self-Check Quizzes

1

If you were to measure the mass of a toy car used in an activity, the unknown quantity is the mass of the toy car and the standard is the _____.

[Need a Hint?](#)

- ☐ gram
- A)**
- ☐ meter
- B)**
- ☐ mole
- C)**
- ☐ second
- D)**

2

Four students reported results from an experiment.

Mass of Unknown Liquid			
Student A	Student B	Student C	Student D
52.3 g	52.35 g	52.353 g	53 g

Which result is more precise?

[Need a Hint?](#)

- ☐ 52.3 g
- A)**
- ☐ 52.35 g
- B)**
- ☐ 52.353 g
- C)**
- ☐ 53 g
- D)**

3

How many satellites are used in the Global Positioning System?

[Need a Hint?](#)

- ☐ 4
- A)**
- ☐ 10
- B)**
- ☐ 15
- C)**
- ☐ 24
- D)**

4

Which type of navigation would be more precise?

[Need a Hint?](#)

- ☐ GPS
- A)**
- ☐ globe
- B)**
- ☐ road map
- C)**
- ☐ star chart
- D)**

5

_____ is the apparent shift in the position of an object when it is viewed from different angles.

[Need a Hint?](#)

- ☐ Accuracy
- A)**
- ☐ Double vision
- B)**
- ☐ Measurement
- C)**
- ☐ Parallax
- D)**

Physics Principles and Problems 2009

Section 1.3 : Graphing Data

Self-Check Quizzes

1

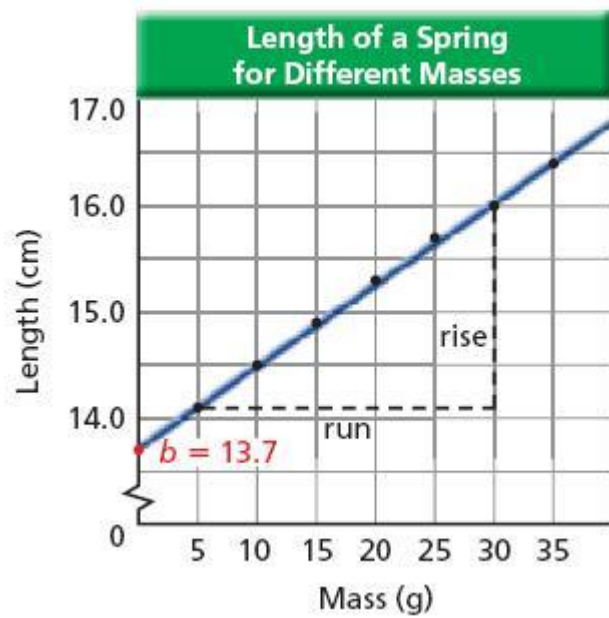
Which describes an independent variable?

[Need a Hint?](#)

- ☐ the factor that is changed or manipulated during an experiment
- A)**
- ☐ the factor that depends on what is changed or manipulated during an experiment
- B)**
- ☐ the line of best fit
- C)**
- ☐ the result of an experiment
- D)**

2

Where is the dependent variable plotted on the graph?

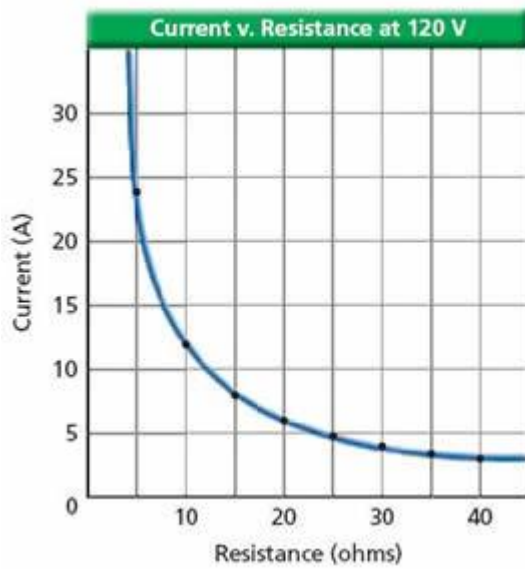


[Need a Hint?](#)

- ☐ horizontal axis
- A)** ☐ the dotted line
- B)** ☐ at (0, 0)
- C)** ☐ vertical axis
- D)** ☐

3

What type of relationship is represented in this graph?

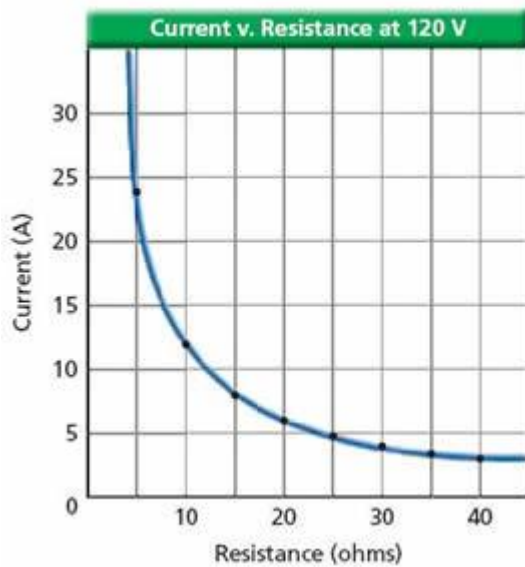


[Need a Hint?](#)

- ☐ acute
- A) inverse**
- ☐ inverse
- B) reverse**
- ☐ reverse
- C) quadratic**
- ☐ quadratic
- D)**

4

What can you determine from looking at this graph?



[Need a Hint?](#)

- ☐ as resistance decreases, current decreases
- A)**
- ☐ as resistance increases, current decreases
- B)**
- ☐ as current increases, resistance increases
- C)**
- ☐ as resistance increases, current stays the same
- D)**

5

Physicists use _____ to accurately predict how systems will behave.

[Need a Hint?](#)

- ☐ graphs
- A)**
- ☐ the line of best fit
- B)**
- ☐ models
- C)**
- ☐ relationships
- D)**