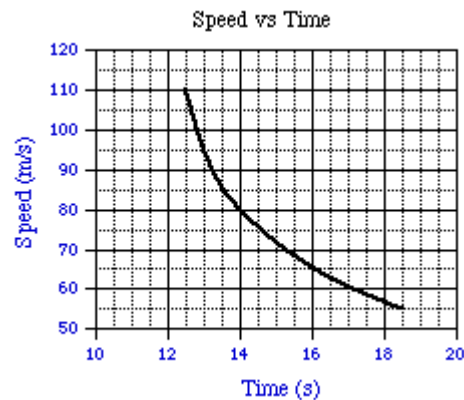


1. Describe the relationship between the variables shown in the graph below.

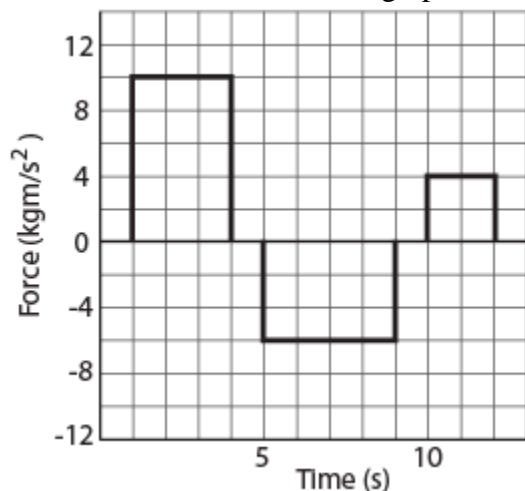


Identify the general equation that is used to represent this type of relationship.

2. Identify the slope and y-intercept of the equation $y = 3x + 6$
3. If $v = 15.5$ m/s and $t = 12$ s, find d using $d = vt$.
4. The total mass of four containers is 5.000 kg. If the mass of Container A = 256 mg, Container B is 5117 cg, and Container C is 382 g, what is the mass of Container D?
5. State the number of significant digits in 3809 m.
6. State the number of significant digits in 0.0045 m.

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7. Determine the area under the graph below.

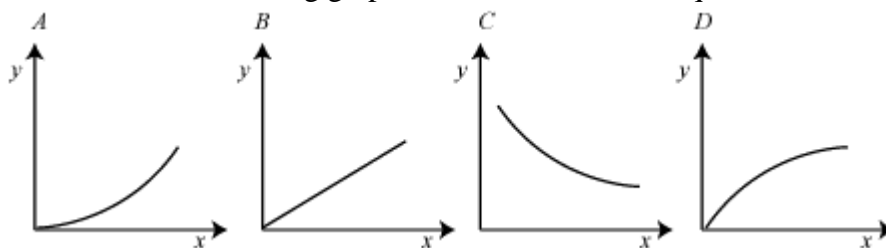


8. The valid digits in a measurement are called ?.
9. When the graph of best fit is a straight line, the dependent and independent variables have a(n) ? relationship.
10. On a graph, the ? is the ratio of the vertical change to the horizontal change.
11. A body has a velocity of 72 km/hr. Find its value in m/s.
12. In scientific notation, a number between 1 and 10 is multiplied by
 - a) any whole number
 - b) a whole-number power of 10
 - c) a fraction
 - d) 10
13. When multiplying quantities expressed in scientific notation ($M \times 10^n$) that have different exponents, you multiply the values of M and _____ the exponents.
 - a) divide
 - b) add
 - c) multiply
 - d) subtract
14. A variable that can be manipulated in an experiment is
 - a) responding variable
 - b) a dependent variable
 - c) an independent variable
 - d) none of these
15. What is indicated by a smooth, upward curving line on a graph?
 - a) No relationship between x and y is indicated
 - b) a linear relationship
 - c) an inverse relationship between x and y
 - d) a direct relationship between y and with the square of x

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16. The slope of a straight-line graph is the vertical change _____ the horizontal change.
- a) added to
 - b) minus
 - c) multiplied by
 - d) divided by
17. A graph that is a hyperbola represents _____ relationship.
- a) no
 - b) an inverse
 - c) a quadratic
 - d) a linear

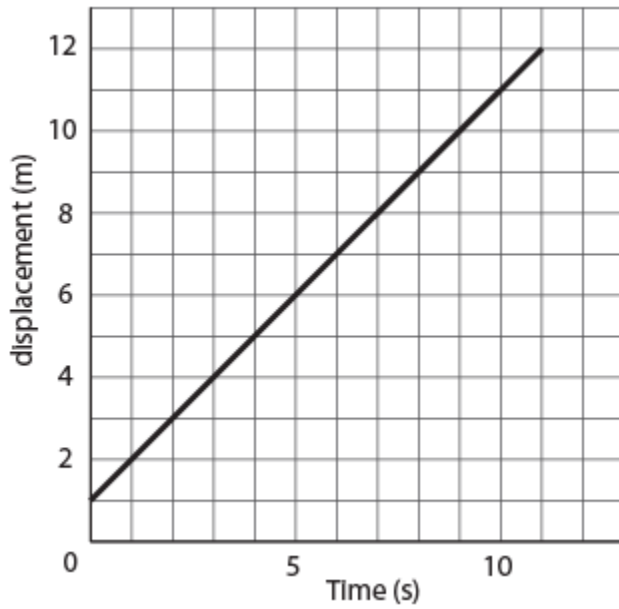
Use the following graphs to answer the next 3 questions.



18. Which graph represents an inverse relationship?
- a) A
 - b) B
 - c) C
 - d) D
19. Which graph represents a linear relationship?
- a) A
 - b) B
 - c) C
 - d) D
20. Which graph represents a square relationship?
- a) A
 - b) B
 - c) C
 - d) D

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21. Determine the slope of the graph below.



- a) 1.1 m/s
- b) 1 m/s
- c) 0.9 m/s
- d) 0.5 m/s

22. T F The SI system uses three base units.

23. 1 micrometer (1 μm) equals:

- a) 10^{-3} m
- b) 10^3 m
- c) 10^6 m
- d) 10^{-6} m

24. What is the volume of a cube whose side is 10 cm?

- a) 10^3 m³
- b) 10^{-3} m³
- c) 10 m³
- d) 10^2 m³