

Applications

If the automobile had followed the same development cycle as the computer, a Rolls-Royce would today cost \$100 [and] get a million miles per gallon.

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- How might those words apply to what you have learned?
- Delia purchased a new car for \$25,350. This make and model straight line depreciates to zero after 13 years.
 - Identify the coordinates of the x - and y -intercepts for the depreciation equation.
 - Determine the slope of the depreciation equation.
 - Write the straight line depreciation equation that models this situation.
 - Draw the graph of the straight line depreciation equation.
- Vince purchased a used car for \$11,200. This make and model used car straight line depreciates to zero after 7 years.
 - Identify the coordinates of the x - and y -intercepts for the depreciation equation.
 - Determine the slope of the depreciation equation.
 - Write the straight line depreciation equation that models this situation.
 - Draw the graph of the straight line depreciation equation.
- Examine the straight line depreciation graph for a car.
 - At what price was the car purchased?
 - After how many years does the car totally depreciate?
 - Write the equation of the straight line depreciation graph shown.
- The straight line depreciation equation for a luxury car is $y = -3,400x + 85,000$.
 - What is the original price of the car?
 - How much value does the car lose per year?
 - How many years will it take for the car to totally depreciate?
- The straight line depreciation equation for a motorcycle is $y = -2,150x + 17,200$.
 - What is the original price of the motorcycle?
 - How much value does the motorcycle lose per year?
 - How many years will it take for the motorcycle to totally depreciate?
- The straight line depreciation equation for a car is $y = -2,750x + 22,000$.
 - What is the car worth after 5 years?
 - What is the car worth after 8 years?
 - Suppose that A represents a length of time in years when the car still has value. Write an algebraic expression to represent the value of the car after A years.

