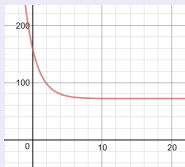


Exponential Functions

Question

Which of the following descriptions could correspond to the graph shown below?



- a A cup of hot coffee with initial temperature $160^{\circ}F$ cools to a surrounding temperature of $72^{\circ}F$ in 10 minutes.
- b A printer was purchased for \$160 and depreciates in value by \$72 per year.
- c A train is moving at a constant rate of 160 km/hr for 10 minutes, then slows to 72 km/hr.
- d A pool filled with 160 gallons of water begins to drain slowly, then the water quickly drains until it reaches 72 gallons.

Answer: (a) Connection to Newton's Law of Cooling, meaning of asymptotes, rates of change, etc.