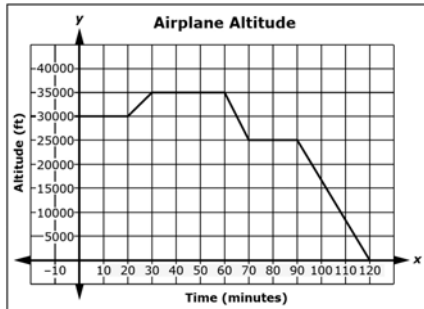


Name _____ Date _____

Check for Understanding

Create and Analyze Piecewise Functions: Investigation 1

An airplane is cruising at an altitude of 30,000 feet. The graph shows the remainder of the flight as the pilot makes adjustments to avoid turbulence and other air traffic. Use the graph of the airplane's altitude over time to answer questions 1-3.



1. Use inequalities to identify the domain and range of the function that describes all the recorded altitudes.

A. Domain: _____

B. Range: _____

2. Match each equation to the interval over which it is defined on the graph.

A. $y = -1,000x + 95,000$

I. $0 \leq x < 20$

B. $y = 25,000$

II. $20 \leq x < 30$

C. $y = 30,000$

III. $30 \leq x < 60$

D. $y = -\frac{2,500}{3}x + 100,000$

IV. $60 \leq x < 70$

E. $y = 500x + 20,000$

V. $70 \leq x < 90$

F. $y = 35,000$

VI. $90 \leq x \leq 120$

3. Fill in the missing values for the piecewise function.

A. $f(50) =$ _____

B. $f(20) =$ _____

C. $f(90) =$ _____

4. How can you determine the interval to which a function value belongs when it is at the endpoint of a segment on the graph?
