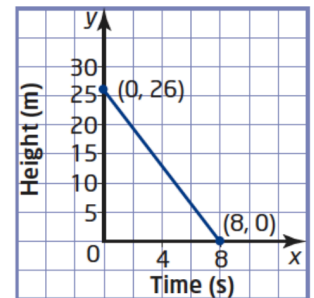


Assignment 2.2 – Linear & Exponential Functions

Answer each of the following

1. The average adult breathes in about 37 L of air every 5 minutes. What is the rate of change of volume of air?
  
2. A teenager’s heart pumps an average of 2,000 gallons of blood every 24 hours. What is the rate of change of volume of blood?
  
3. A hummingbird can flap its wings an average of 1800 times every 30 seconds. What is the rate of change of wing flaps?

4. The graph shows the height above the ground of a rock climber over time. a) Calculate the slope of the graph. b) Interpret the slope as a rate of change.



5. The price of a loaf of bread increased from \$1.45 in 2003 to \$1.78 in 2006. What is the average price increase per year?

6. The table shows the minimum volume of water needed to fight a typical fire in rooms of various sizes. Calculate the rate of change using units.

Floor Area (m <sup>2</sup> )	Minimum Volume of Water (L)
25	39
50	78
75	117

