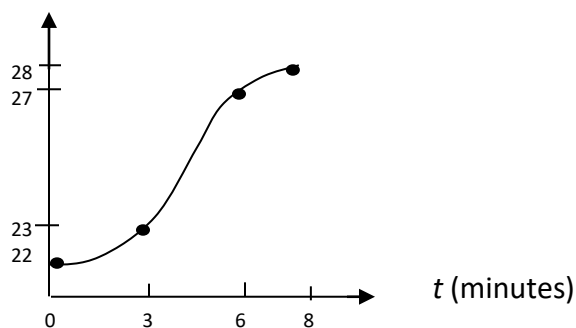


#1 – 6: Compute the average rate of change of the function on the given interval.

- 1)  $f(x) = x^2 + 2x$  on  $[3, 5]$
- 2)  $f(x) = \sqrt{x}$  on  $[4, 9]$
- 3)  $g(x) = x^2 - 4x$  on  $[-1, 3]$
- 4)  $g(x) = x^3 - x$  on  $[1, 2]$
- 5)  $h(t) = 2t - 6$  on  $[5, 12]$
- 6)  $h(t) = 16 - 7t$  on  $[-\sqrt{2}, 2\sqrt{2}]$

7: The following graph shows the temperature  $G(t)$  of a solution during the first 8 minutes of a chemistry experiment.

$G(t)$  ( $^{\circ}\text{C}$ )



Compute the average rate of change of temperature,  $\frac{\Delta G}{\Delta t}$ , over the following intervals. (Be sure to specify the units as a part of each answer.)

- a)  $t = 0$  min to  $t = 3$  min
- b)  $t = 3$  min to  $t = 6$  min
- c)  $t = 6$  min to  $t = 8$  min