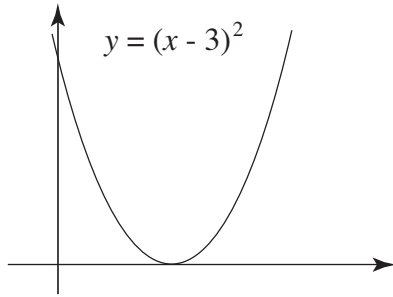


**Quiz****Name**

Consider the parabola  $y = (x - 3)^2 = x^2 - 6x + 9$ . Its graph is depicted in the figure below.



- a.** Set up a definite integral that represents the area under parabola and over the interval  $0 \leq x \leq 3$ . Find the numerical value of the area.

Integral:  $\int$

Value:

- b.** Set up a definite integral that represents the length of the parabola from the point  $(1, 4)$  to the point  $(5, 4)$ . *No need to evaluate the integral.*

Ans.  $\int$