

**25** The graph of  $y = 9 - x^2$  has the same shape as the graph of  $y = x^2$  except that it has been reflected in the  $x$ -axis and shifted up 9 units. Note that if the point  $(0, 0)$  is reflected in the  $x$ -axis and shifted up 9 units it becomes the point  $(0, 9)$ . Similarly, the point  $(3, 9)$ , when reflected in the  $x$ -axis and shifted up 9 units, becomes the point  $(3, 0)$ . Therefore the distances are identical. The distance from  $(0, 9)$  to  $(3, 0)$  along the curve  $y = 9 - x^2$  is also approximately 9.747.