

Math 111 Quiz #2 Answers

1. Perpendicular (The lines have slope 2 and $-\frac{1}{2}$ respectively.)

2. Domain: $x \neq 3$ or $(-\infty, 3) \cup (3, \infty)$

3. (a) i. $h(9) = \sqrt{19}$

$$\begin{aligned} \text{ii. } h(t-3) &= \sqrt{100 - (t-3)^2} \\ &= \sqrt{-t^2 + 6t + 91} \end{aligned}$$

(b) Solving $\sqrt{100 - x^2} = 6 \Rightarrow x = \pm 8$

4. Draw the given lines for the given values of x .

