

1. (6) Use the function $g(x) = \sqrt{64 - x^2}$ to evaluate and simplify:

(a) $g(0)$

(d) $g(\sqrt{15})$

(b) $g(-3)$

(e) $g(8)$

(c) $g(10)$

(f) $g(3t)$

2. (4) Determine the zeros of the function $Y(p) = \frac{(p^2 - 6)(3p - 2)}{p^2 + 3p - 4}$.

3. (7) Evaluate and simplify each of the following expressions, given the function

$$T(x) = \frac{x+1}{2x}.$$

(a) $T(3)$

(c) $T\left(\frac{x}{2}\right)$

(b) $T(x+1)$

(d) $T(x^2 - 1)$

4. (3) Determine the domain of the function $q(x) = \frac{x^2 + 4x - 12}{\sqrt{2x + 4}}$. Write your answer in interval notation.