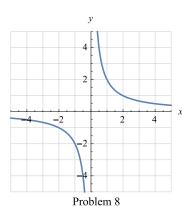
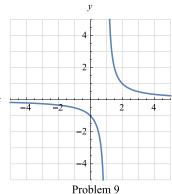
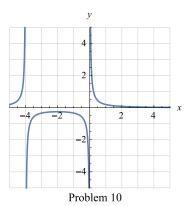
Rational Functions and their Graphs-Answers Evaluate It, Graph It Handout







1. 1. If $f(x) = \frac{1}{x^3-2}$, find f(-1), f(0), and f(1).

 $f(-1) = -\frac{1}{3}, f(0) = -\frac{1}{2}, f(1) = -1$

- 2. If $f(x) = \frac{25}{x^2-25}$, find f(-5), f(0), and f(5). f(-5) = undefined, f(0) = -1, f(5) = undefined
- 3. If $f(x) = \frac{10}{x}$, find f(-5), f(-1), and f(0). f(-5) = -2, f(-1) = -10, f(0) = undefined
- 4. If $f(x) = \frac{x^3}{x^2-1}$, find f(0), f(1), and f(2). $f(0) = 0, f(1) = \text{undefined}, f(2) = \frac{8}{3}$
- 5. If $f(x) = \frac{x}{x-7}$, find f(0), f(3), and f(7).

- $f(0) = 0, f(3) = -\frac{3}{4}, f(7) =$ undefined
 - 6. If $f(x) = -\frac{2}{x}$, find f(0), f(2), and f(4).

 $f(0) = \text{undefined}, f(2) = -1, f(4) = -\frac{1}{2}$

- 7. If $f(x) = \frac{2x+1}{x}$, find f(-2), f(0), and f(2). $f(-2) = \frac{3}{2}$, f(0) = undefined, $f(2) = \frac{5}{2}$
- 8. Graph $f(x) = \frac{2}{x}$.
- 9. Graph $f(x) = \frac{1}{x-1}$.
 - 10. Graph $f(x) = \frac{1}{x^2 + 4x}$.

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