

1.10 Types of Discontinuities

Calculus

Name: _____

CA #1

For each function identify the type of each discontinuity and where it is located.

<p>1. $f(x) = \frac{x}{x^2+14x+49}$</p>	<p>2. $f(x) = \frac{x-7}{x^2-10x+21}$</p>	<p>3. $f(x) = \tan 3x$ for $0 \leq x \leq 2\pi$</p>
<p>4. $f(x) = -x^4 + 2x^2 - 4$</p>	<p>5. $f(x) = \frac{x}{6x^2-36}$</p>	<p>6. $f(x) = \frac{x^2-7x+12}{x-4}$</p>

Answers to 1.10 CA #1

1. V.A. at $x = -7$	2. Hole at $x = 7$ V.A. at $x = 3$	3. V.A. at $x = \frac{\pi}{11}, \frac{3\pi}{11}, \frac{5\pi}{11}, \frac{7\pi}{11}, \frac{9\pi}{11}, \frac{11\pi}{11}, \frac{13\pi}{11}, \frac{15\pi}{11}, \frac{17\pi}{11}, \frac{19\pi}{11}, \frac{21\pi}{11}, \frac{23\pi}{11}, \frac{25\pi}{11}, \frac{27\pi}{11}, \frac{29\pi}{11}, \frac{31\pi}{11}, \frac{33\pi}{11}$	4. Continuous Function.	5. V.A. at $x = \sqrt{6}$ and $x = -\sqrt{6}$	6. Hole at $x = 4$
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