QUIZ 3 - MATH 112
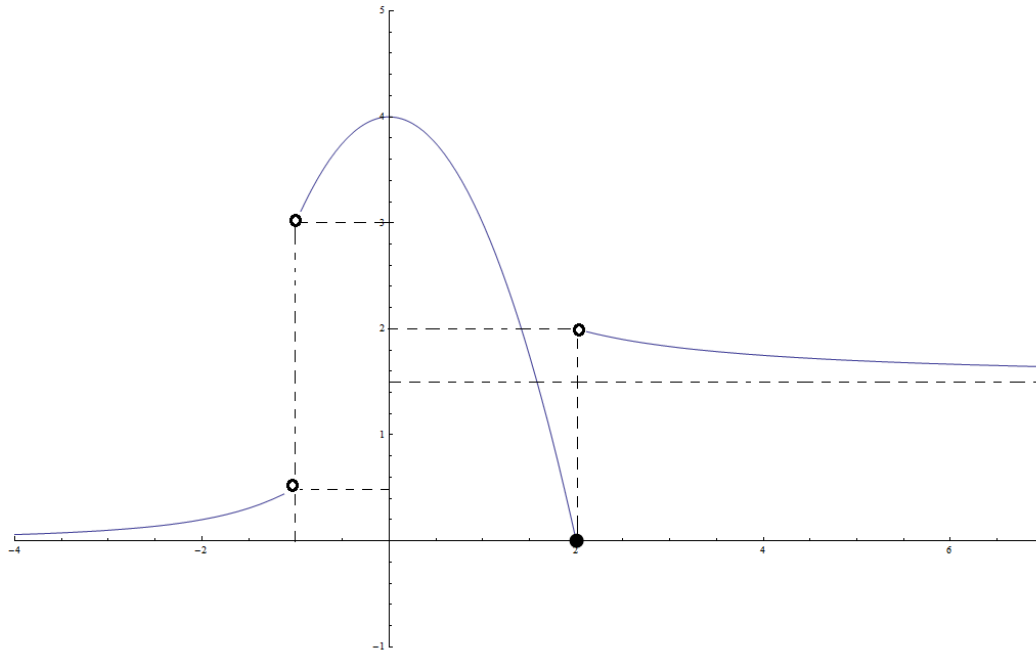
YOUR NAME:_____

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Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Consider the function $y = f(x)$ whose graph is sketched below. Find the following:

(a) $\lim\limits_{x \to -\infty} f(x) =$

(b) $f(-1) =$

(c) $\lim\limits_{x \to -1^-} f(x) =$

(d) $\lim\limits_{x \to -1^+} f(x) =$

(e) $\lim\limits_{x \to -1} f(x) =$

(f) $\lim\limits_{x \to +\infty} f(x) =$

(g) $f(2) =$

(h) $\lim\limits_{x \to 2^-} f(x) =$

(i) $\lim\limits_{x \to 2^+} f(x) =$

(j) $\lim\limits_{x \to 2} f(x) =$

2. Compute the following limits:

(a) $\displaystyle \lim_{x \to 7} \frac{x^2 - 6x - 7}{x^2 - 12x + 35} =$

(b) $\displaystyle \lim_{x \to 3} \frac{\sqrt{x+1} - 2}{x^2 - 3x} =$