Name _____KEY_____ Date _____ Period _____

## Evaluate the limit based on the graph of f shown.

1. $\lim\limits_{x \to 5^+} f(x) = -\infty$

    $\lim\limits_{x \to 5^-} f(x) = \infty$

    $\lim\limits_{x \to \infty} f(x) = 0$

    $\lim\limits_{x \to -\infty} f(x) = 0$
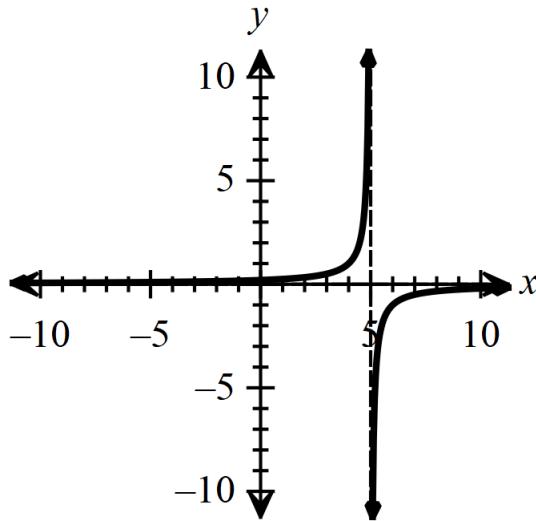
2. $\lim\limits_{x \to -2^+} f(x) = -\infty$

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

    $\lim\limits_{x \to \infty} f(x) = -3$

    $\lim\limits_{x \to -\infty} f(x) = -3$

    $\lim\limits_{x \to 3^+} f(x) = \infty$

    $\lim\limits_{x \to 3^-} f(x) = -\infty$
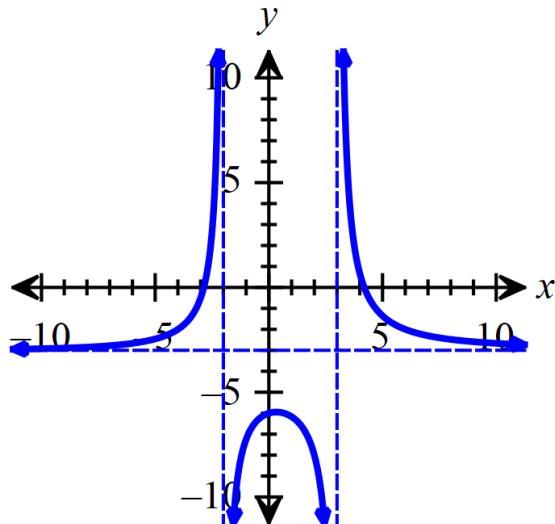
3. $\lim\limits_{x\to 1^+} f(x) = -\infty$

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

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

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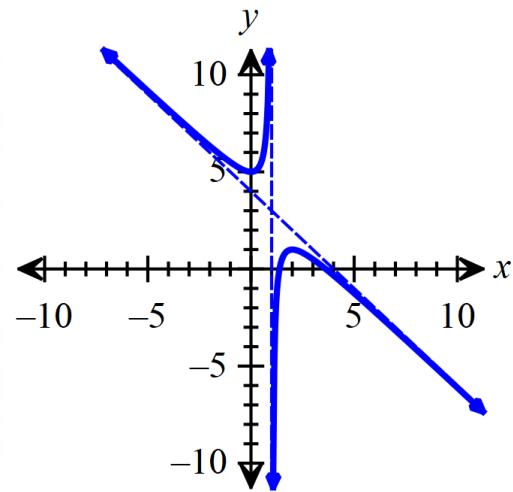
4. $\lim\limits_{x\to -1^+} f(x) = \infty$

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

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

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

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

$\lim\limits_{x\to 2^-} f(x) = -\infty$
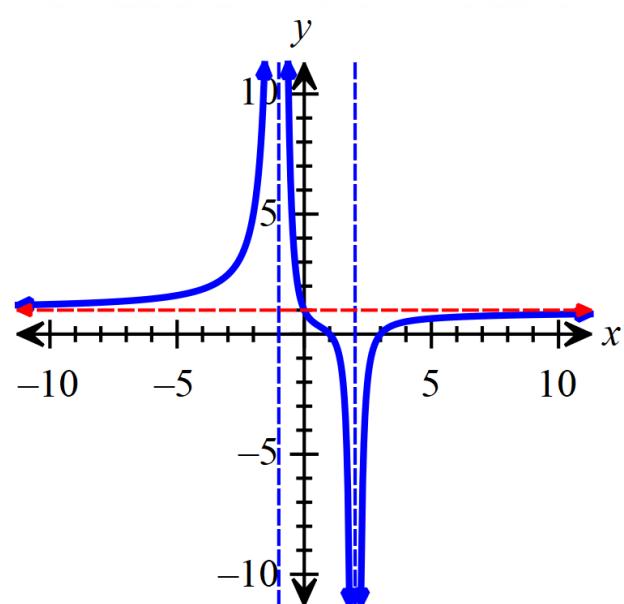
5. Write the limits in limit notation.

$\lim\limits_{x\to\infty} f(x) = 6$

$\lim\limits_{x\to -\infty} f(x) = 6$

$\lim\limits_{x\to 3^+} f(x) = -\infty$

$\lim\limits_{x\to 3^-} f(x) = -\infty$