When we're in CASE 2, meaning $f(c) = \frac{\text{nonzero number}}{0}$, making a table is fine for the quiz, but time might be an issue. To determine analytically if the limit of $f(x)$ as $x$ approaches $c$ exists, the main thing is to look at the denominator of the fraction you're dealing with.

If the denominator has $(x-c)^n$ or $(c-x)^n$ and **n is ODD**, then the (overall) limit does not exist.
If you need to find the *one-sided limits* analytically, we have the following...
For the left limit, $(x-c)^n$ will be negative and $(c-x)^n$ will be positive.
For the right limit, $(x-c)^n$ will be positive and $(c-x)^n$ will be negative.
Then look at the signs in the numerator and the denominator to determine if the *one-sided limit* is positive or negative infinity.

If **n is EVEN**, then the limit exists, and you need to determine if the limit is infinity or negative infinity. First, figure out what the sign of the numerator is when $x = c$. Because we're raising $(x-c)$ or $(c-x)$ to an EVEN power, it will always be positive. So, the sign (positive or negative) on infinity will match the sign of the numerator.