Card 1:

What are the four steps to making a graph from its Limits?

Card 2:

1. Label each piece
   - ✓ Vertical Asymptotes:
     $$\lim_{x \to c^+} f(x) \text{ or } \lim_{x \to c^-} f(x) \text{ or } \lim_{x \to c} f(x) = \pm\infty$$
   - ✓ Horizontal Asymptotes: $\lim_{x \to \pm\infty} f(x) = L$
   - ✓ Open Circles: $\lim_{x \to c} f(x) = L$
   - ✓ Closed Circles: $f(x) = y$
2. Graph VA, HA, Open, & Closed Circles
3. Graph behavior at VA & Open Circles
4. Graph end behavior

Card 3:

Sketch the graph of a function with the following Limits:

$$\lim_{x \to -2^-} f(x) = \infty \qquad \lim_{x \to \infty} f(x) = -\infty$$

$$\lim_{x \to -2^+} f(x) = -\infty \qquad \lim_{x \to -\infty} f(x) = -\infty$$

$$f(2) = 3 \qquad \lim_{x \to 2} f(x) = -3$$

Card 4:

$$\left.\begin{array}{l} \lim_{x \to -2^-} f(x) = \infty \\ \lim_{x \to -2^+} f(x) = -\infty \end{array}\right\} \text{VA: X = -2}$$

$f(2) = 3$ closed circle (2,3)

$\lim_{x \to \infty} f(x) = -\infty$ EB (Right, down)

$\lim_{x \to -\infty} f(x) = -\infty$ EB (Left, down)

$\lim_{x \to 2} f(x) = -3$ open circle (2,-3)