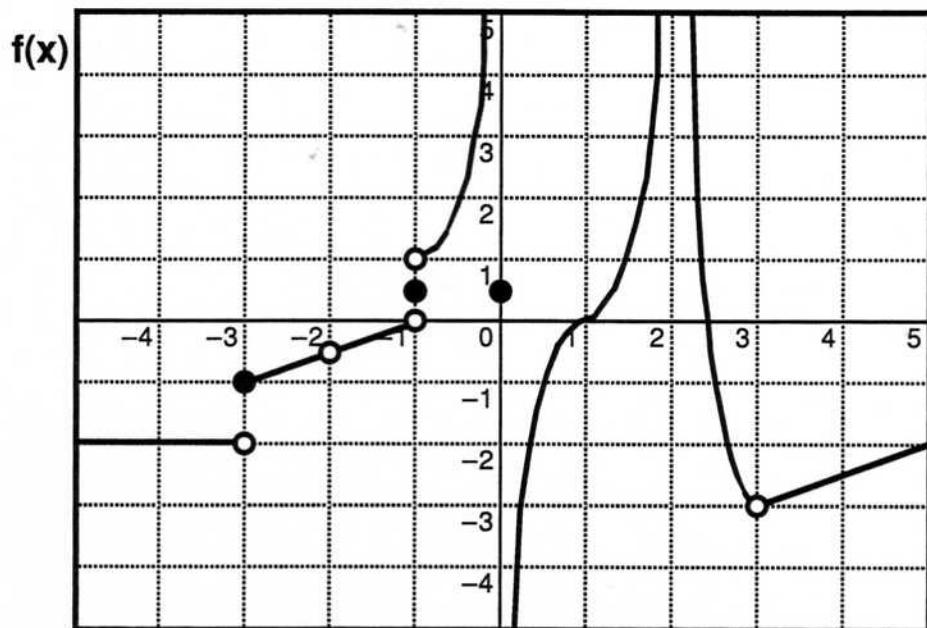


WHAT DID THE ASYMPTOTE SAY TO THE REMOVABLE DISCONTINUITY?



Complete the table below for $f(x)$.

| a | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
|---------------------------------|----|----|-----|-----|-----|-----|-----|
| $f(a)$ | 1) | 5) | 9) | 13) | 17) | 21) | 25) |
| $\lim_{x \rightarrow a^-} f(x)$ | 2) | 6) | 10) | 14) | 18) | 22) | 26) |
| $\lim_{x \rightarrow a^+} f(x)$ | 3) | 7) | 11) | 15) | 19) | 23) | 27) |
| $\lim_{x \rightarrow a} f(x)$ | 4) | 8) | 12) | 16) | 20) | 24) | 28) |

29) Give the **right hand limit** as x approaches -5?

- A. -3
- D. 0.5
- E. -0.5
- H. 0
- I. 1
- L. -1
- M. 6
- N. -2
- R. 2
- O. ∞
- T. none
- U. $-\infty$

30) Give the **left hand limit** as x approaches 5?

31) For what integer value in the above table is $f(x)$ continuous?

32) $f(x)$ has a removable discontinuity (hole) when the x value is 3 and when the x value is (?).

33) $f(x)$ is not defined at the vertical asymptote $x = (?)$.

34) On the open interval $(-5, 5)$, $f(x)$ has (?) discontinuities.

| | | | | | | | | | | | | | | | | | | |
|---|----|----|----|---|----|----|----|----|----|----|----|----|----|----|---|----|---|----|
| | | | , | | | | | | | | | | | | | | | |
| 9 | 22 | 32 | | 4 | 17 | 27 | 2 | 13 | 25 | 10 | 28 | 16 | 19 | 23 | 1 | 31 | 6 | 33 |
| | | | | | | | | | | | | | | | | | | |
| 5 | 18 | 26 | 29 | | 12 | 20 | 24 | 15 | 3 | 11 | 30 | 8 | 21 | 14 | | 34 | 7 | |