

- Let  $f(x) = \frac{-x^2 - 9x}{x^2 + 9x + 18}$ . Solve the inequality  $f(x) \geq 0$ .

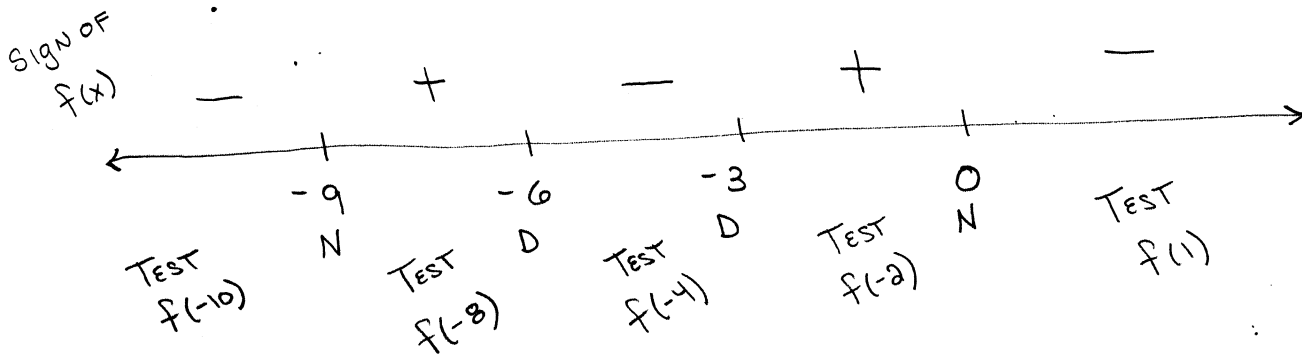
Factor numerator and denominator completely...

$$f(x) = \frac{-x(x+9)}{(x+3)(x+6)}$$

(N) ZEROS OF NUMER :  $x = 0, x = -9$

(D) ZEROS OF DENOM :  $x = -3, x = -6$

Sign chart...



$$f(x) \geq 0 \text{ on } [-9, -6) \cup (-3, 0]$$

CANNOT INCLUDE  $-6$  &  $-3$

BECAUSE THEY ARE

RESTRICTED VALUES.