Solve the inequality $\frac{25}{x-3} \geq \frac{9}{x-1} - 2$. Write your final answer in interval notation.

SCORE: ____ / 4 PTS

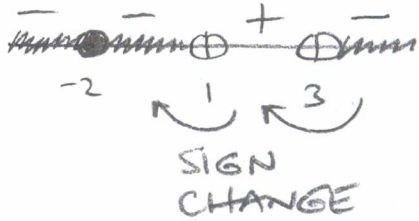
$$0 \geq \frac{9}{x-1} - 2 - \frac{25}{x-3}$$

$$0 \geq \frac{9(x-3) - 2(x-1)(x-3) - 25(x-1)}{(x-1)(x-3)}$$

$$0 \geq \frac{9x-27-2(x^2-4x+3)-25x+25}{(x-1)(x-3)}$$

$$0 \geq \frac{9x-27-2x^2+8x-6-25x+25}{(x-1)(x-3)}$$

$$0 \geq \frac{-2x^2-8x-8}{(x-1)(x-3)} = \frac{-2(x^2+4x+4)}{(x-1)(x-3)} = \frac{-2(x+2)^2}{(x-1)(x-3)}$$



$(-\infty, 1) \cup (3, \infty)$