

0.9
3

$$x^2 + \frac{m}{m-1}x + \frac{2m-3}{m-1} = 0$$



$$\Delta > 0 \quad : (2, 173)$$

$$f(2) > 0$$

$$\frac{-b}{2a} > 2$$

$$\Delta = \frac{m^2}{(m-1)^2} - \frac{8m-12}{m-1} = \frac{m^2 - 8m^2 + 20m - 12}{(m-1)^2} =$$

$$\frac{-7m^2 + 20m - 12}{(m-1)^2} > 0$$



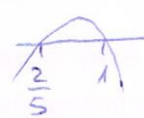
$$\rightarrow \begin{cases} 1 < m < 2 \\ \frac{6}{7} < m < 1 \end{cases}$$

$$0 < f(2) = 4 + \frac{2m}{m-1} + \frac{2m-3}{m-1} = \frac{8m-7}{m-1}$$

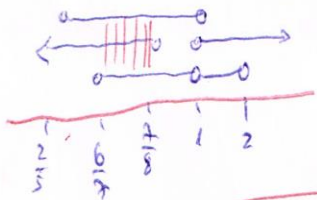


$$\begin{cases} m > 1 \\ m < \frac{7}{8} \end{cases}$$

$$2 < \frac{-b}{2a} \Rightarrow 2 < \frac{-m}{2(m-1)} \Rightarrow 0 < \frac{-m-4m+2}{2(m-1)} = \frac{-5m+2}{2(m-1)}$$



$$\begin{cases} \frac{2}{5} < m < 1 \end{cases}$$



∴ interval of m

$$\begin{cases} \frac{6}{7} < m < \frac{7}{8} \end{cases}$$