Solution

Domain of $\sqrt{\frac{x(x-3)}{x-1}}$: $\left[\begin{array}{cc} \text{Solution:} & 0 \leq x < 1 \quad \text{or} \quad x \geq 3 \\ \text{Interval Notation:} & [0,1) \cup [3,\infty) \end{array}\right]$

Range of $\sqrt{\frac{x(x-3)}{x-1}}$: $\left[\begin{array}{cc} \text{Solution:} & f(x) \geq 0 \\ \text{Interval Notation:} & [0,\infty) \end{array}\right]$

Axis interception points of $\sqrt{\frac{x(x-3)}{x-1}}$: X Intercepts: $(3,0), (0,0)$, Y Intercepts: $(0,0)$

Asymptotes of $\sqrt{\frac{x(x-3)}{x-1}}$: Vertical: $x = 1$

Extreme Points of $\sqrt{\frac{x(x-3)}{x-1}}$: Minimum $(3,0)$

Graph

Plotting: $y = \sqrt{\frac{x(x-3)}{x-1}}$