

1. Find the domain of the rational expression:

$$\frac{\sqrt{x-1}}{x-4}$$

2. Reduce to lowest terms:

$$\frac{x^2-9}{x-3}$$

3. Add:

$$\frac{1}{x-1} + \frac{1}{x}$$

4. Subtract:

$$\frac{1}{x-1} - \frac{1}{x}$$

5. Simplify the compound fraction:

$$\frac{1 + \frac{2}{x}}{1 - \frac{2}{x}}$$