

You didn't distribute when you multiplied the numerator by \sqrt{a} . The first two steps are:

$$\frac{\sqrt{a} + \sqrt{b}}{\sqrt{a}} \cdot \frac{\sqrt{a}}{\sqrt{a}} = \frac{\sqrt{a} \cdot \sqrt{a} + \sqrt{b} \cdot \sqrt{a}}{\sqrt{a^2}}$$

Multiply the radicals, then simplify each term. The correct answer is: $\frac{a + \sqrt{ab}}{a}$