

$$\frac{\sqrt{98x^9}}{\sqrt{2x^2}} = \sqrt{\frac{98x^9}{2x^2}} = \sqrt{\frac{49x^7 \cdot 2x^2}{2x^2}} = \sqrt{49x^7}$$
$$= \sqrt{7^2 \cdot (x^3)^2 \cdot x} = \sqrt{7^2} \cdot \sqrt{(x^3)^2} \cdot \sqrt{x} = 7x^3\sqrt{x}$$