$$\frac{\sqrt{200}}{\sqrt{8}+\sqrt{3}}$$

$$\frac{\sqrt{200}(\sqrt{8}+\sqrt{3})}{(\sqrt{8}+\sqrt{3})(\sqrt{8}+\sqrt{3})}$$

$$\frac{40+10\sqrt{6}}{11+4\sqrt{6}}$$

$$\frac{\sqrt[4]{(256x^3)}x^{\frac{1}{2}}}{(64x^4)^{\frac{1}{5}}}$$

$$\frac{4}{x+2}+\frac{5}{2-3x}=0$$

$$\frac{8-12x+5x+10}{(x+2)(2-3x)}=0$$

$$\frac{18-7x}{(x+2)(2-3x)}=0$$

Solve the equation:

$$\frac{4}{x+2}+\frac{5}{2-3x}=0$$

$$\frac{4(2-3x)+5(x+2)}{(x+2)(2-3x)}=0$$

$$\frac{18-7x}{(x+2)(2-3x)}=0$$

$$18-7x=0$$
$$x=\frac{18}{7}$$

$$x\neq -2 \quad \text{and} \quad x\neq \frac{2}{3}$$

Final solution:

$$x=\frac{18}{7}, \quad \text{where } x\neq -2 \text{ and } x\neq \frac{2}{3}$$

$$2\pi-\frac{\pi}{3}+\sqrt{2}+\sqrt{8}$$