

$$1) \frac{8}{\sqrt{3}-\sqrt{7}} = ?$$

$$\begin{aligned} \frac{8}{\sqrt{3}-\sqrt{7}} &= \frac{8(\sqrt{3}+\sqrt{7})}{(\sqrt{3}-\sqrt{7})(\sqrt{3}+\sqrt{7})} \\ &= \frac{8(\sqrt{3}+\sqrt{7})}{\sqrt{9}-\sqrt{49}} = \frac{8(\sqrt{3}+\sqrt{7})}{3-7} \\ &= \frac{8(\sqrt{3}+\sqrt{7})}{-4} = -2(\sqrt{3}+\sqrt{7}) \\ &= -2\sqrt{3} - 2\sqrt{7} \end{aligned}$$