

Anti-Quiz # 1

Express as one fraction reduced to lowest terms:

$$\begin{aligned}\frac{5}{2\sqrt{7} - \sqrt{3}} - \frac{3}{5\sqrt{3}} &= \frac{(5)(2\sqrt{7} + \sqrt{3})}{(2\sqrt{7} - \sqrt{3})(2\sqrt{7} + \sqrt{3})} - \frac{(\sqrt{3})(\sqrt{3})}{5\sqrt{3}} \\ &= \frac{10\sqrt{7} + 5\sqrt{3}}{(2\sqrt{7})^2 - (\sqrt{3})^2} - \frac{\sqrt{3}}{5} \\ &= \frac{10\sqrt{7} + 5\sqrt{3}}{(4)(7) - 3} - \frac{\sqrt{3}}{5} \\ &= \frac{10\sqrt{7} + 5\sqrt{3}}{25} - \frac{\sqrt{3}}{5} \\ &= \frac{2\sqrt{7} + \sqrt{3}}{5} - \frac{\sqrt{3}}{5} \\ &= \frac{2\sqrt{7} + \sqrt{3} - \sqrt{3}}{5} \\ &= \boxed{\frac{2\sqrt{7}}{5} \text{ or } 0.4\sqrt{7}}\end{aligned}$$