

$$1 \quad (\sqrt{11} - \sqrt{7})(\sqrt{11} + \sqrt{7}) - (\sqrt{11} - \sqrt{7})^2 = 2\sqrt{77} - 14$$

$$2 \quad (\sqrt{2} - \sqrt{5} + \sqrt{7})(\sqrt{2} - \sqrt{5} - \sqrt{7}) - (\sqrt{2} - \sqrt{5})^2 = -7$$

$$3 \quad (\sqrt{a+b} + \sqrt{a-b})^2 - (\sqrt{a+b} - \sqrt{a-b})^2 = 4\sqrt{a^2 - b^2}$$

$$4 \quad \left(3 - \frac{1}{\sqrt{3}}\right)^2 - \left(3 + \frac{1}{\sqrt{3}}\right)^2 = -4\sqrt{3}$$

$$5 \quad \left(\frac{3}{2} - \sqrt{\frac{2}{3}}\right)^2 - \left(\frac{3}{2} + \sqrt{\frac{2}{3}}\right)^2 = -2\sqrt{6}$$

$$6 \quad \left(\frac{3\sqrt{2} - 2\sqrt{3}}{\sqrt{6}} - \frac{3 + \sqrt{6}}{\sqrt{3}}\right)^2 = 8$$

$$7 \quad \left(\frac{\sqrt{27} - \sqrt{8}}{\sqrt{12}} - \frac{3}{2}\right)^2 - \left(\sqrt{\frac{2}{3}} - \frac{1}{\sqrt{2}}\right)\left(\sqrt{\frac{2}{3}} + \frac{1}{\sqrt{2}}\right) = \frac{1}{2}$$

$$8 \quad \frac{25 - 5\sqrt{5}}{\sqrt{5}} - \frac{\sqrt{80}}{3 + \sqrt{5}} - 10\sqrt{\frac{1}{5}} = 0$$

$$9 \quad \frac{12 + 2\sqrt{3}}{\sqrt{3}} - 6\sqrt{\frac{1}{3}} - \frac{\sqrt{48}}{\sqrt{3} - 1} = -4$$

$$10 \quad \frac{15 - 7\sqrt{6}}{\sqrt{6}} - \frac{\sqrt{54}}{\sqrt{6} + 3} + 3\sqrt{\frac{1}{6}} = -1$$

$$11 \quad \frac{1}{\sqrt{2}} + \frac{1}{2\sqrt{2} - 4} - \frac{1 - \sqrt{2}}{2\sqrt{2}} = 0$$

$$12 \quad \left(\frac{\sqrt{3} - \sqrt{6}}{\sqrt{2}} - \frac{\sqrt{6} + \sqrt{2}}{\sqrt{3}} - \frac{1}{\sqrt{6}}\right)\left(\frac{1}{\sqrt{2}} - \frac{3}{\sqrt{12}}\right) = \frac{1}{2}$$