$$\frac{a-a^{-2}}{a^{\frac{1}{2}}-a^{-\frac{1}{2}}}-\frac{2}{a^{\frac{3}{2}}}-\frac{1-a^{-2}}{a^{\frac{1}{2}}+a^{-\frac{1}{2}}}=$$

$$"a^{-n}=\frac{1}{a^n}"$$

$$=\frac{a-\frac{1}{a^2}}{\sqrt{a}-\frac{1}{\sqrt{a}}}-\frac{2}{a^{\frac{3}{2}}}-\frac{1-\frac{1}{a^2}}{\sqrt{a}+\frac{1}{\sqrt{a}}}=$$

$$=\frac{\frac{a^3-1}{a^2}}{\frac{a-1}{\sqrt{a}}}-\frac{2}{a^{\frac{3}{2}}}-\frac{\frac{a^2-1}{a^2}}{\frac{a+1}{\sqrt{a}}}=$$

$$=\frac{\cancel{(a-1)}(a^2+a+1)}{\cancel{\sqrt{a}}\sqrt{a}\sqrt{a}\sqrt{a}}\cdot\frac{\cancel{\sqrt{a}}}{\cancel{a-1}}-\frac{2}{a^{\frac{3}{2}}}-\frac{(a-1)\cancel{(a+1)}}{\cancel{\sqrt{a}}\sqrt{a}\sqrt{a}\sqrt{a}}\cdot\frac{\cancel{\sqrt{a}}}{\cancel{a+1}}=$$

$$"\sqrt{a}\sqrt{a}\sqrt{a}=a^{1/2}\cdot a^{1/2}\cdot a^{1/2}=a^{3/2}"$$

$$=\frac{a^2+a+1-2-a+1}{a^{3/2}}=\frac{a^2}{a^{3/2}}=a^{2-1,5}=\sqrt{\mathbf{a}};\ a>0\wedge a\neq 1$$