$$gm(R) = \sqrt[6]{0.11} \cdot 0.19 \cdot 0.10 \cdot 0.42 \cdot 0.04 \cdot 0.03 = 0.10$$

$$gm(S) = \sqrt[2]{0.04 \cdot 0.01} = 0.02$$

$$y^*(R,S) = \sqrt{\frac{6 \cdot 2}{6 + 2}} \cdot \log \frac{gm(R)}{gm(S)} = 1.97$$