

α) Είναι:

$$\begin{aligned} A \cdot B \cdot \Gamma &= \sqrt[3]{5} \cdot \sqrt{3} \cdot \sqrt[6]{5} = \\ &= 5^{\frac{1}{3}} \cdot \sqrt{3} \cdot 5^{\frac{1}{6}} = \sqrt{3} \cdot 5^{\frac{1}{3} + \frac{1}{6}} \\ &= \sqrt{3} \cdot 5^{\frac{2}{3}} = \sqrt{3} \cdot 5^{\frac{1}{2}} = \\ &= \sqrt{3} \cdot \sqrt{5} = \sqrt{15}. \end{aligned}$$

β) Είναι:

$$A = \sqrt[3]{5} = 5^{\frac{1}{3}} = 5^{\frac{2}{6}} = \sqrt[6]{5^2} = \sqrt[6]{25} \quad \text{και} \quad B = \sqrt{3} = 3^{\frac{1}{2}} = 3^{\frac{3}{6}} = \sqrt[6]{3^3} = \sqrt[6]{27}.$$

Ισχύει ότι:

$$25 < 27 \Leftrightarrow \sqrt[6]{25} < \sqrt[6]{27} \Leftrightarrow A < B.$$