

**α)** Είναι:

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

**β)** Είναι:

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

Ισχύει ότι:

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