



Grade: IX

Subject: Mathematics

Topic: Surds.

Worksheet No:3

I. Reduce to surds of the same order:

1. $\sqrt{3}$ and $\sqrt[3]{2}$
2. $\sqrt[3]{4}$ and $\sqrt[4]{5}$
3. $\sqrt[5]{2}$ and $\sqrt[3]{3}$
4. $\sqrt[4]{3}$ and $\sqrt[5]{5}$
5. $\sqrt[5]{4}$ and $\sqrt[8]{6}$

II. Which is greater?

6. $\sqrt{2}$ or $\sqrt[3]{3}$
7. $\sqrt[3]{3}$ or $\sqrt[4]{4}$
8. $\sqrt[8]{6}$ or $\sqrt[4]{10}$

III. Arrange according to descending order of magnitude:

9. $\sqrt[4]{6}$, $\sqrt{2}$ and $\sqrt[3]{4}$
10. $\sqrt[4]{3}$, $\sqrt[8]{10}$ and $\sqrt[12]{25}$

ANSWERS

1. $\sqrt[6]{27}$ and $\sqrt[6]{4}$
2. $\sqrt[12]{256}$ and $\sqrt[12]{125}$
3. $\sqrt[15]{8}$ and $\sqrt[15]{243}$
4. $\sqrt[12]{27}$ and $\sqrt[12]{25}$
5. $\sqrt[24]{256}$ and $\sqrt[24]{216}$
6. The latter
7. The former
8. The former
9. $\sqrt[3]{4}, \sqrt[4]{6}, \sqrt{2}$
10. $\sqrt[8]{10}, \sqrt[4]{3}, \sqrt[12]{25}$

CENTUM ACADEMY