

EduSahara™ Learning Center Assignment**Grade : Class IX, SSC****Chapter : Real Numbers****Name : Comparison and Sorting**

1. Which of the following is true?

(i) $\sqrt{7} < \sqrt{3}$ (ii) $\sqrt{7} > \sqrt{10}$ (iii) $\sqrt{8} > \sqrt{6}$

(iv) $\sqrt{5} < \sqrt{4}$ (v) $\sqrt{10} < \sqrt{2}$

Sort the following surd terms in ascending order

2. $\sqrt{6}$, $\sqrt{15}$, $\sqrt{4}$, $\sqrt{13}$, $\sqrt{15}$

(i) $\sqrt{15}$, $\sqrt{4}$, $\sqrt{6}$, $\sqrt{15}$, $\sqrt{13}$

(ii) $\sqrt{13}$, $\sqrt{6}$, $\sqrt{4}$, $\sqrt{15}$, $\sqrt{15}$

(iii) $\sqrt{15}$, $\sqrt{6}$, $\sqrt{15}$, $\sqrt{4}$, $\sqrt{13}$

(iv) $\sqrt{4}$, $\sqrt{15}$, $\sqrt{15}$, $\sqrt{6}$, $\sqrt{13}$

(v) $\sqrt{4}$, $\sqrt{6}$, $\sqrt{13}$, $\sqrt{15}$, $\sqrt{15}$

Sort the following surd terms in ascending order

3. $8\sqrt{5}$, $2\sqrt{6}$, $9\sqrt{10}$, $7\sqrt{3}$, $4\sqrt{11}$

(i) $2\sqrt{6}$, $4\sqrt{11}$, $9\sqrt{10}$, $8\sqrt{5}$, $7\sqrt{3}$

(ii) $2\sqrt{6}$, $7\sqrt{3}$, $4\sqrt{11}$, $8\sqrt{5}$, $9\sqrt{10}$

(iii) $8\sqrt{5}$, $7\sqrt{3}$, $4\sqrt{11}$, $2\sqrt{6}$, $9\sqrt{10}$

(iv) $4\sqrt{11}$, $2\sqrt{6}$, $8\sqrt{5}$, $9\sqrt{10}$, $7\sqrt{3}$

(v)

$$4\sqrt{11}, 2\sqrt{6}, 7\sqrt{3}, 8\sqrt{5}, 9\sqrt{10}$$

Sort the following surd terms in ascending order

4. $\frac{5}{\sqrt{3}}, \frac{8}{\sqrt{3}}, \frac{4}{\sqrt{3}}, \frac{8}{\sqrt{3}}, \frac{4}{\sqrt{3}}$

(i) $\frac{5}{\sqrt{3}}, \frac{4}{\sqrt{3}}, \frac{8}{\sqrt{3}}, \frac{8}{\sqrt{3}}, \frac{4}{\sqrt{3}}$

(ii) $\frac{5}{\sqrt{3}}, \frac{8}{\sqrt{3}}, \frac{8}{\sqrt{3}}, \frac{4}{\sqrt{3}}, \frac{4}{\sqrt{3}}$

(iii) $\frac{4}{\sqrt{3}}, \frac{8}{\sqrt{3}}, \frac{8}{\sqrt{3}}, \frac{5}{\sqrt{3}}, \frac{4}{\sqrt{3}}$

(iv) $\frac{8}{\sqrt{3}}, \frac{8}{\sqrt{3}}, \frac{5}{\sqrt{3}}, \frac{4}{\sqrt{3}}, \frac{4}{\sqrt{3}}$

(v) $\frac{8}{\sqrt{3}}, \frac{8}{\sqrt{3}}, \frac{4}{\sqrt{3}}, \frac{4}{\sqrt{3}}, \frac{5}{\sqrt{3}}$

Sort the following surd terms in ascending order

5. $6\sqrt{3}, \sqrt{3}, 9\sqrt{3}, 4\sqrt[3]{3}, 2\sqrt[3]{3}$

(i) $4\sqrt[3]{3}, 9\sqrt{3}, 6\sqrt{3}, 2\sqrt[3]{3}, \sqrt{3}$

(ii) $6\sqrt{3}, \sqrt{3}, 4\sqrt[3]{3}, 9\sqrt{3}, 2\sqrt[3]{3}$

(iii) $\sqrt{3}, 6\sqrt{3}, 4\sqrt[3]{3}, 9\sqrt{3}, 2\sqrt[3]{3}$

(iv) $9\sqrt{3}, 4\sqrt[3]{3}, 6\sqrt{3}, \sqrt{3}, 2\sqrt[3]{3}$

(v) $\sqrt{3}, 2\sqrt[3]{3}, 4\sqrt[3]{3}, 6\sqrt{3}, 9\sqrt{3}$

Sort the following surd terms in ascending order

6. $\frac{3}{\sqrt{8}}, \sqrt{8}, \frac{3}{\sqrt{5}}, \frac{4}{\sqrt{3}}, \frac{3}{\sqrt{8}}$

(i) $\frac{3}{\sqrt{8}}, \sqrt{8}, \frac{3}{\sqrt{5}}, \frac{4}{\sqrt{3}}, \frac{3}{\sqrt{8}}$

$$(ii) \quad \sqrt[3]{8}, \sqrt[3]{5}, \sqrt[3]{8}, \sqrt{8}, \sqrt[4]{3}$$

$$(iii) \quad \sqrt[3]{5}, \sqrt[3]{8}, \sqrt[4]{3}, \sqrt{8}, \sqrt[3]{8}$$

$$(iv) \quad \sqrt[4]{3}, \sqrt[3]{5}, \sqrt[3]{8}, \sqrt[3]{8}, \sqrt{8}$$

$$(v) \quad \sqrt[4]{3}, \sqrt[3]{8}, \sqrt{8}, \sqrt[3]{8}, \sqrt[3]{5}$$

Sort the following surd terms in ascending order

$$7. \quad \sqrt[3]{3}, 3\sqrt[3]{3}, 9\sqrt[3]{9}, 2\sqrt[3]{5}, 6\sqrt[3]{3}$$

$$(i) \quad \sqrt[3]{3}, 2\sqrt[3]{5}, 3\sqrt[3]{3}, 6\sqrt[3]{3}, 9\sqrt[3]{9}$$

$$(ii) \quad 6\sqrt[3]{3}, 9\sqrt[3]{9}, 2\sqrt[3]{5}, 3\sqrt[3]{3}, \sqrt[3]{3}$$

$$(iii) \quad 2\sqrt[3]{5}, 3\sqrt[3]{3}, 9\sqrt[3]{9}, 6\sqrt[3]{3}, \sqrt[3]{3}$$

$$(iv) \quad 9\sqrt[3]{9}, \sqrt[3]{3}, 2\sqrt[3]{5}, 3\sqrt[3]{3}, 6\sqrt[3]{3}$$

$$(v) \quad \sqrt[3]{3}, 9\sqrt[3]{9}, 3\sqrt[3]{3}, 6\sqrt[3]{3}, 2\sqrt[3]{5}$$

Sort the following surd terms in descending order

$$8. \quad \sqrt{2}, \sqrt{13}, \sqrt{8}, \sqrt{14}, \sqrt{9}$$

$$(i) \quad \sqrt{14}, \sqrt{13}, \sqrt{2}, \sqrt{8}, \sqrt{9}$$

$$(ii) \quad \sqrt{14}, \sqrt{13}, \sqrt{9}, \sqrt{8}, \sqrt{2}$$

$$(iii) \quad \sqrt{9}, \sqrt{14}, \sqrt{8}, \sqrt{13}, \sqrt{2}$$

$$(iv) \quad \sqrt{8}, \sqrt{9}, \sqrt{13}, \sqrt{14}, \sqrt{2}$$

$$(v) \quad \sqrt{2}, \sqrt{8}, \sqrt{13}, \sqrt{14}, \sqrt{9}$$

Sort the following surd terms in descending order

9. $\sqrt{15}$, $4\sqrt{8}$, $4\sqrt{3}$, $7\sqrt{11}$, $8\sqrt{9}$

(i) $7\sqrt{11}$, $\sqrt{15}$, $4\sqrt{8}$, $4\sqrt{3}$, $8\sqrt{9}$

(ii) $7\sqrt{11}$, $8\sqrt{9}$, $4\sqrt{3}$, $4\sqrt{8}$, $\sqrt{15}$

(iii) $8\sqrt{9}$, $4\sqrt{8}$, $\sqrt{15}$, $7\sqrt{11}$, $4\sqrt{3}$

(iv) $4\sqrt{8}$, $8\sqrt{9}$, $4\sqrt{3}$, $\sqrt{15}$, $7\sqrt{11}$

(v) $8\sqrt{9}$, $7\sqrt{11}$, $4\sqrt{8}$, $4\sqrt{3}$, $\sqrt{15}$

Sort the following surd terms in descending order

10. $\frac{8}{\sqrt{3}}$, $\frac{8}{\sqrt{3}}$, $\frac{3}{\sqrt{3}}$, $\frac{5}{\sqrt{3}}$, $\frac{3}{\sqrt{3}}$

(i) $\frac{5}{\sqrt{3}}$, $\frac{3}{\sqrt{3}}$, $\frac{3}{\sqrt{3}}$, $\frac{8}{\sqrt{3}}$, $\frac{8}{\sqrt{3}}$

(ii) $\frac{8}{\sqrt{3}}$, $\frac{3}{\sqrt{3}}$, $\frac{5}{\sqrt{3}}$, $\frac{8}{\sqrt{3}}$, $\frac{3}{\sqrt{3}}$

(iii) $\frac{3}{\sqrt{3}}$, $\frac{3}{\sqrt{3}}$, $\frac{5}{\sqrt{3}}$, $\frac{8}{\sqrt{3}}$, $\frac{8}{\sqrt{3}}$

(iv) $\frac{8}{\sqrt{3}}$, $\frac{3}{\sqrt{3}}$, $\frac{8}{\sqrt{3}}$, $\frac{3}{\sqrt{3}}$, $\frac{5}{\sqrt{3}}$

Sort the following surd terms in descending order

11. $\sqrt{3}$, $5\sqrt{3}$, $3\sqrt{3}$, $6\sqrt[3]{3}$, $\sqrt{3}$

(i) $\sqrt{3}$, $3\sqrt{3}$, $5\sqrt{3}$, $\sqrt{3}$, $6\sqrt[3]{3}$

(ii) $3\sqrt{3}$, $\sqrt{3}$, $5\sqrt{3}$, $6\sqrt[3]{3}$, $\sqrt{3}$

(iii) $5\sqrt{3}$, $\sqrt{3}$, $6\sqrt[3]{3}$, $3\sqrt{3}$, $\sqrt{3}$

$$(iv) \sqrt[3]{3}, 5\sqrt[3]{3}, 3\sqrt[3]{3}, \sqrt[3]{3}, 6\sqrt[3]{3}$$

$$(v) 5\sqrt[3]{3}, 6\sqrt[3]{3}, 3\sqrt[3]{3}, \sqrt[3]{3}, \sqrt[3]{3}$$

Sort the following surd terms in descending order

$$12. \sqrt[3]{4}, \sqrt[4]{9}, \sqrt[2]{2}, \sqrt[3]{8}, \sqrt[4]{9}$$

$$(i) \sqrt[3]{8}, \sqrt[4]{9}, \sqrt[4]{9}, \sqrt[3]{4}, \sqrt[2]{2}$$

$$(ii) \sqrt[3]{4}, \sqrt[2]{2}, \sqrt[4]{9}, \sqrt[4]{9}, \sqrt[3]{8}$$

$$(iii) \sqrt[3]{4}, \sqrt[3]{8}, \sqrt[2]{2}, \sqrt[4]{9}, \sqrt[4]{9}$$

$$(iv) \sqrt[4]{9}, \sqrt[3]{4}, \sqrt[3]{8}, \sqrt[4]{9}, \sqrt[2]{2}$$

$$(v) \sqrt[3]{8}, \sqrt[4]{9}, \sqrt[3]{4}, \sqrt[2]{2}, \sqrt[4]{9}$$

Sort the following surd terms in descending order

$$13. 5\sqrt[3]{2}, 7\sqrt[3]{3}, 2\sqrt[4]{4}, 3\sqrt[3]{9}, 7\sqrt[3]{5}$$

$$(i) 7\sqrt[3]{5}, 3\sqrt[3]{9}, 2\sqrt[4]{4}, 5\sqrt[3]{2}, 7\sqrt[3]{3}$$

$$(ii) 7\sqrt[3]{3}, 5\sqrt[3]{2}, 7\sqrt[3]{5}, 2\sqrt[4]{4}, 3\sqrt[3]{9}$$

$$(iii) 7\sqrt[3]{3}, 7\sqrt[3]{5}, 2\sqrt[4]{4}, 5\sqrt[3]{2}, 3\sqrt[3]{9}$$

$$(iv) 7\sqrt[3]{5}, 7\sqrt[3]{3}, 5\sqrt[3]{2}, 3\sqrt[3]{9}, 2\sqrt[4]{4}$$

$$(v) 3\sqrt[3]{9}, 7\sqrt[3]{5}, 5\sqrt[3]{2}, 7\sqrt[3]{3}, 2\sqrt[4]{4}$$

14. Which of the following is true?

$$(i) \sqrt{10} > \sqrt{8} \quad (ii) \sqrt{4} > \sqrt{8} \quad (iii) \sqrt{8} < \sqrt{3}$$

$$(iv) \sqrt{10} < \sqrt{8} \quad (v) \sqrt{8} > \sqrt{10}$$

10	2	3	10
✓	✓	✓	✓

Assignment Key

- 1) (iii)
- 2) (v)
- 3) (ii)
- 4) (iv)
- 5) (v)
- 6) (iv)
- 7) (i)
- 8) (ii)
- 9) (v)
- 10) (iii)
- 11) (v)
- 12) (i)
- 13) (iv)
- 14) (i)