EduSahara™ Assignment

Name : Multiplication and Division

Chapter : Real Numbers

Grade : SSC Grade IX



1. $\sqrt{5} \times (-8\sqrt{4}) =$

(i) $(-16\sqrt{5})$ (ii) $(-16\sqrt{8})$ (iii) $(-16\sqrt[4]{5})$ (iv) $(-80)$ (v) $(-16\sqrt{3})$

2. $(5\sqrt{6}-5\sqrt{8}) \times (-\sqrt{7}+8\sqrt{2}) =$

(i) $(-5\sqrt{42}+10\sqrt[4]{14}+40\sqrt{12}-160)$ (ii) $(-5\sqrt{42}+10\sqrt{14}+40\sqrt{12}-158)$ (iii) $(-5\sqrt{39}+10\sqrt{14}+40\sqrt{12}-160)$

(iv) $(-5\sqrt{42}+10\sqrt{14}+40\sqrt{12}-160)$ (v) $(-5\sqrt{42}+10\sqrt{14}+40\sqrt[4]{12}-160)$

3. $(-4\sqrt{2}) \div (-\sqrt{3}) =$

(i) $\frac{4}{3}\sqrt{4}$ (ii) $\frac{4}{3}\sqrt{6}$ (iii) $\frac{4}{3}\sqrt{8}$ (iv) $\frac{4}{3}\sqrt[4]{6}$ (v) $8$

4. $(-6\sqrt{4}+9\sqrt{5}) \div (-7\sqrt{7}-7\sqrt{8}) =$

(i) $(-\frac{12}{7}\sqrt{4}+\frac{9}{7}\sqrt{35}+\frac{24}{7}\sqrt{2}-\frac{18}{7}\sqrt{10})$ (ii) $(-\frac{12}{7}\sqrt{7}+\frac{9}{7}\sqrt{35}+\frac{24}{7}\sqrt[4]{2}-\frac{18}{7}\sqrt{10})$

(iii) $(-\frac{12}{7}\sqrt{7}+\frac{9}{7}\sqrt{35}+\frac{24}{7}\sqrt{2}-\frac{18}{7}\sqrt{12})$ (iv) $(-\frac{12}{7}\sqrt{7}+\frac{9}{7}\sqrt[4]{35}+\frac{24}{7}\sqrt{2}-\frac{18}{7}\sqrt{10})$

(v) $(-\frac{12}{7}\sqrt{7}+\frac{9}{7}\sqrt{35}+\frac{24}{7}\sqrt{2}-\frac{18}{7}\sqrt{10})$

5. $\sqrt[3]{7} \times \sqrt[3]{7} =$

(i) $\sqrt[5]{7^2}$ (ii) $\sqrt[3]{9^2}$ (iii) $\sqrt[3]{7^2}$ (iv) $\sqrt[1]{7^2}$ (v) $\sqrt[3]{5^2}$

6. $5\sqrt{10} \times 3\sqrt{3} =$

(i) $\sqrt{6747}$ (ii) $\sqrt[4]{6750}$ (iii) $\sqrt{6750}$ (iv) $6750$ (v) $\sqrt{6752}$

7. $\frac{\sqrt[8]{8}}{\sqrt[8]{10}} =$

(i) $\sqrt[6]{\frac{4}{5}}$ (ii) $\sqrt[8]{\frac{6}{5}}$ (iii) $\sqrt[8]{\frac{2}{5}}$ (iv) $\sqrt[8]{\frac{4}{5}}$ (v) $\sqrt[10]{\frac{4}{5}}$

8. $\dfrac{9\sqrt[3]{2}}{7\sqrt[3]{7}} =$

(i) $\dfrac{1458}{2401}$ (ii) $\sqrt[5]{\dfrac{1458}{2401}}$ (iii) $\sqrt[3]{\dfrac{1458}{2401}}$ (iv) $\sqrt[3]{\dfrac{1460}{2401}}$ (v) $\sqrt[3]{\dfrac{208}{343}}$

9. $\dfrac{\sqrt[6]{2}}{\sqrt[6]{19}} =$

(i) $\sqrt[8]{\dfrac{2}{19}}$ (ii) $\sqrt[6]{\dfrac{19}{2}}$ (iii) $\sqrt[6]{\dfrac{2}{19}}$ (iv) $\sqrt[4]{\dfrac{2}{19}}$ (v) $\sqrt[6]{\dfrac{4}{19}}$

10. $\dfrac{\sqrt[3]{9}}{7\sqrt[3]{13}} =$

(i) $\sqrt[3]{\dfrac{9}{4459}}$ (ii) $\dfrac{9}{4459}$ (iii) $\sqrt[5]{\dfrac{9}{4459}}$ (iv) $\sqrt[3]{\dfrac{1}{637}}$ (v) $\sqrt[3]{\dfrac{11}{4459}}$

11. $(-4\sqrt{7}) \times 3\sqrt{8} =$

(i) $(-24\sqrt{14})$ (ii) $(-24\sqrt{17})$ (iii) $(-24\sqrt[4]{14})$ (iv) $(-24\sqrt{12})$ (v) $(-336)$

12. $(4\sqrt{7}+3\sqrt{4}) \times (7\sqrt{4}+7\sqrt{7}) =$

(i) $(98\sqrt{10}+280)$ (ii) $(98\sqrt{7}+280)$ (iii) $(98\sqrt{7}+279)$ (iv) $(98\sqrt{7}+281)$ (v) $(98\sqrt{4}+280)$

13. $(-6\sqrt{4}) \div (-8\sqrt{4}) =$

(i) $\dfrac{3}{2}$ (ii) $\dfrac{3}{4}$ (iii) $\dfrac{1}{2}$ (iv) $\dfrac{5}{4}$ (v) $\dfrac{1}{4}$

14. $(2\sqrt{9}+5\sqrt{8}) \div (-6\sqrt{3}-2\sqrt{8}) =$

(i) $(-\dfrac{9}{19}\sqrt{3}-\dfrac{15}{19}\sqrt[4]{6}+\dfrac{6}{19}\sqrt{2}+\dfrac{20}{19})$ (ii) $(-\dfrac{9}{19}\sqrt{3}-\dfrac{15}{19}\sqrt{6}+\dfrac{6}{19}\sqrt{2}+\dfrac{22}{19})$ (iii) $(-\dfrac{9}{19}\sqrt{3}-\dfrac{15}{19}\sqrt{6}+\dfrac{6}{19}\sqrt{2}+\dfrac{20}{19})$

(iv) $(-\dfrac{9}{19}\sqrt{3}-\dfrac{15}{19}\sqrt{6}+\dfrac{6}{19}\sqrt[4]{2}+\dfrac{20}{19})$ (v) $(-\dfrac{9}{19}-\dfrac{15}{19}\sqrt{6}+\dfrac{6}{19}\sqrt{2}+\dfrac{20}{19})$

15. $\sqrt[11]{6} \times \sqrt[11]{3} =$

(i) $\sqrt[9]{18}$ (ii) $\sqrt[11]{18}$ (iii) $\sqrt[11]{15}$ (iv) $\sqrt[11]{21}$ (v) $\sqrt[13]{18}$

16. $3\sqrt{3} \times 3\sqrt{5} =$

(i) $1215$ (ii) $\sqrt{1215}$ (iii) $\sqrt{1218}$ (iv) $\sqrt[4]{1215}$ (v) $\sqrt{1212}$

17. $\frac{\sqrt[6]{2}}{\sqrt[6]{8}} =$

(i) $\sqrt[6]{\frac{-1}{4}}$ (ii) $\sqrt[6]{\frac{3}{4}}$ (iii) $\sqrt[8]{\frac{1}{4}}$ (iv) $\sqrt[4]{\frac{1}{4}}$ (v) $\sqrt[6]{\frac{1}{4}}$

18. $\frac{\sqrt{10}}{\sqrt{4}} =$

(i) $\sqrt{\frac{7}{2}}$ (ii) $\frac{5}{2}$ (iii) $\sqrt{\frac{3}{2}}$ (iv) $\sqrt[4]{\frac{5}{2}}$ (v) $\sqrt{\frac{5}{2}}$

19. $\frac{\sqrt[4]{14}}{\sqrt[4]{11}} =$

(i) $\sqrt[6]{\frac{14}{11}}$ (ii) $\sqrt[4]{\frac{12}{11}}$ (iii) $\sqrt[4]{\frac{14}{11}}$ (iv) $\sqrt{\frac{14}{11}}$ (v) $\sqrt[4]{\frac{16}{11}}$

20. $\frac{\sqrt[3]{3}}{4\sqrt[3]{18}} =$

(i) $\sqrt[3]{\frac{1}{128}}$ (ii) $\sqrt[3]{\frac{1}{384}}$ (iii) $\sqrt[5]{\frac{1}{384}}$ (iv) $\frac{1}{384}$ (v) $\sqrt[3]{\frac{-1}{384}}$

## Assignment Key

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|---|---|---|---|---|---|
| 1) (i) | 2) (iv) | 3) (ii) | 4) (v) | 5) (iii) | 6) (iii) |
| 7) (iv) | 8) (iii) | 9) (iii) | 10) (i) | 11) (i) | 12) (ii) |
| 13) (ii) | 14) (iii) | 15) (ii) | 16) (ii) | 17) (v) | 18) (v) |
| 19) (iii) | 20) (ii) | | | | |