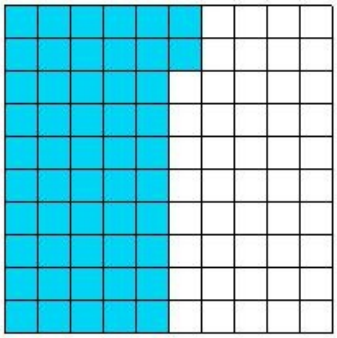
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Real Numbers

Grade : SSC Grade IX

1. What is the decimal number represented by the shaded region?



(i) 0.52 (ii) 0.42 (iii) 0.72 (iv) 0.32 (v) 0.62

2. Which of the following decimal numbers lie between 7285.84 and 7285.85?

(i) 7285.846 (ii) 72858.463 (iii) 7285.835 (iv) 7285.859 (v) 728.585

3. Which of the following is a binomial surd?

(i) 6 (ii) $(-6\sqrt{5}+7\sqrt{3}+4\sqrt{9})$ (iii) $(1+9\sqrt{5})$ (iv) $(2\sqrt{4}-8\sqrt{2})$ (v) $\sqrt{512}$

4. Rationalise the denominator of $\frac{1}{(-\sqrt{3})}$

(i) $(-\frac{1}{3}\sqrt{3})$ (ii) $(-\frac{1}{3}\sqrt{\frac{1}{3}})$ (iii) $(-\frac{1}{3}\sqrt[4]{3})$ (iv) (-1) (v) $(-\frac{1}{3}\sqrt{5})$

5. The decimal number 0.177 lies between

(i) {0,1} (ii) {-2,-1} (iii) {2,3} (iv) {1,2} (v) {-1,0}

6. Rationalise the denominator of $\frac{1}{(\sqrt{8}-\sqrt{6})}$

(i) $(\sqrt{4}+\frac{1}{2}\sqrt{6})$ (ii) $(\sqrt{2}+\frac{1}{2}\sqrt[4]{6})$ (iii) $(\sqrt{\frac{1}{2}}+\frac{1}{2}\sqrt{6})$ (iv) $(\sqrt{2}+3)$ (v) $(\sqrt{2}+\frac{1}{2}\sqrt{6})$

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

(i) (-7) (ii) $(-\sqrt{7})$ (iii) $(-\sqrt[4]{7})$ (iv) $(-\sqrt{5})$ (v) $(-\sqrt{10})$

8. $(-5\sqrt[3]{4}+4\sqrt[3]{3}-5\sqrt[3]{7})-(4\sqrt[3]{4}-7\sqrt[3]{7}-7\sqrt[3]{3})=$

(i) $(-9\sqrt[3]{4}+11+2\sqrt[3]{7})$ (ii) $(-9\sqrt[3]{4}+11\sqrt[3]{3}+2\sqrt[5]{7})$ (iii) $(-9\sqrt[3]{4}+11\sqrt[3]{3}+14)$ (iv) $(-9\sqrt[3]{4}+11\sqrt[3]{6}+2\sqrt[3]{7})$

(v) $(-9\sqrt[3]{4}+11\sqrt[3]{3}+2\sqrt[3]{7})$

9. Express $\frac{7}{9}$ as a decimal correct to 2 decimal places

(i) 0.88 (ii) 0.08 (iii) 0.78 (iv) 0.58 (v) 7.78

10. 10.477 =

(i) $\frac{10477}{10}$ (ii) $\frac{10477}{100000}$ (iii) $\frac{10477}{10000}$ (iv) $\frac{10477}{1000}$ (v) $\frac{10477}{100}$

11. Which of the following is a biquadratic surd?

(i) $4\sqrt[3]{8}$ (ii) $(-7\sqrt[4]{2})$ (iii) $\sqrt[8]{5}$ (iv) $(-8\sqrt[5]{7})$ (v) $6\sqrt{5}$

12. Which of the following fractions converts to a terminating decimal?

(i) $\frac{215}{18}$ (ii) $\frac{151}{9}$ (iii) $\frac{302}{171}$ (iv) $\frac{3705}{64}$ (v) $\frac{151}{171}$

13. $(9\sqrt[3]{8}-\sqrt[3]{6}+9\sqrt[3]{7})+(7\sqrt[3]{4}-5\sqrt[3]{9}-6\sqrt[3]{7})=$

(i) $(9\sqrt[3]{5}-\sqrt[3]{6}+3\sqrt[3]{7}+7\sqrt[3]{4}-5\sqrt[3]{9})$ (ii) $(9\sqrt[3]{8}-\sqrt[3]{6}+3\sqrt[3]{7}+7\sqrt[3]{6}-5\sqrt[3]{9})$ (iii) $(9\sqrt[3]{8}-\sqrt[5]{6}+3\sqrt[3]{7}+7\sqrt[3]{4}-5\sqrt[3]{9})$

(iv) $(9\sqrt[3]{8}-\sqrt[3]{6}+3\sqrt[3]{7}+7\sqrt[3]{4}-5\sqrt[3]{9})$ (v) $(9\sqrt[3]{8}-\sqrt[3]{6}+3\sqrt[5]{7}+7\sqrt[3]{4}-5\sqrt[3]{9})$

14. Simplify the expression $(-4)^2 \times (-4)^2 \times (-4)^2$

(i) $(-4)^7$ (ii) $(-2)^6$ (iii) $(-7)^6$ (iv) $(-4)^5$ (v) $(-4)^6$

15. $\left[\left(\frac{9}{8}\right)^{(5/3)}\right]^{-4/5} =$

(i) $\left(\frac{7}{8}\right)^{(-4/3)}$ (ii) $\left(\frac{9}{8}\right)^{(-6/5)}$ (iii) $\left(\frac{11}{8}\right)^{(-4/3)}$ (iv) $\left(\frac{9}{8}\right)^{(-4/3)}$ (v) $\left(\frac{9}{8}\right)^{-2}$

16. $7\sqrt{7} \times (-8\sqrt{9}) =$

(i) (-1176) (ii) $(-168\sqrt[4]{7})$ (iii) $(-168\sqrt{7})$ (iv) $(-168\sqrt{5})$ (v) $(-168\sqrt{10})$

17. Express $\frac{297}{1000}$ as a decimal correct to 3 decimal places

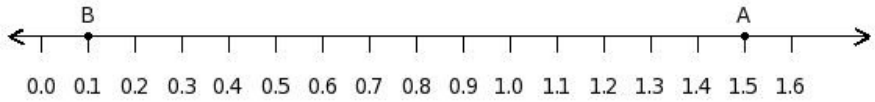
(i) 0.297 (ii) 0.03 (iii) 0.397 (iv) 0.097 (v) 2.97

18. $(-4\sqrt{6}+2\sqrt{7}-7\sqrt{4})-(-5\sqrt{4}+\sqrt{2}+2\sqrt{6})=$

(i) $(-6\sqrt{6}+2\sqrt{7}-4-\sqrt{4})$ (ii) $(-6\sqrt{3}+2\sqrt{7}-4-\sqrt{2})$ (iii) $(-6\sqrt{6}+2\sqrt{7}-3-\sqrt{2})$ (iv) $(-6\sqrt{6}+2\sqrt[4]{7}-4-\sqrt{2})$

(v) $(-6\sqrt{6}+2\sqrt{7}-4-\sqrt{2})$

19. Find the difference between the decimal values at point A and B



(i) 1.4000 (ii) 1.5000 (iii) 1.6000 (iv) 1.2000 (v) 1.3000

20. The decimal number 0.922 lies between

(i) {1,2} (ii) {2,3} (iii) {-2,-1} (iv) {0,1} (v) {-1,0}

21. If $\sqrt{2}=1.4142, \sqrt{3}=1.7321, \sqrt{5}=2.2361, \sqrt{7}=2.6458,$

the value of $(7\sqrt{300}+13\sqrt{540})=$

(i) 422.336 (ii) 424.336 (iii) 423.336 (iv) 421.336 (v) 425.336

22. The decimal number 3.015 lies between

(i) {2.995,3.005} (ii) {3.005,3.025} (iii) {3.013,3.014} (iv) {3.025,3.035} (v) {3.016,3.017}

23. $\left[(-2)^{\left(\frac{3}{2}\right)}\right]^{-3/2} =$

(i) $(-2)^{\left(\frac{-13}{6}\right)}$ (ii) 1 (iii) $(-2)^{\left(\frac{-5}{2}\right)}$ (iv) $(-2)^{\left(\frac{-9}{4}\right)}$ (v) $(-4)^{\left(\frac{-9}{4}\right)}$

24. Simplify the expression $(-8)^{-9}\times(-8)^{-4}\times(-8)^{-3}$

(i) $(-5)^{-16}$ (ii) $(-8)^{-15}$ (iii) $(-8)^{-17}$ (iv) $(-8)^{-16}$ (v) $(-11)^{-16}$

25. Express $\frac{8}{9}$ as a decimal correct to 3 decimal places

(i) 0.789 (ii) 0.689 (iii) 1.089 (iv) 0.989 (v) 0.889

Assignment Key

1) (i)	2) (i)	3) (iv)	4) (i)	5) (i)	6) (v)
7) (ii)	8) (v)	9) (iii)	10) (iv)	11) (ii)	12) (iv)
13) (iv)	14) (v)	15) (iv)	16) (iii)	17) (i)	18) (v)
19) (i)	20) (iv)	21) (iii)	22) (ii)	23) (iv)	24) (iv)
25) (v)					