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ST. LAWRENCE HIGH SCHOOL



A Jesuit Christian minority Institution

Subject: Mathematics

Class- X

Date:11/05/2020

Worksheet-24

Chapter- surds

Topic- Basic concepts of surds

1.Choose the correct alternative.

1x15=15

a) Square root of 32 is i) $2\sqrt{3}$ ii) $4\sqrt{2}$ iii) $4\sqrt{3}$ iv) none of these

b) $\sqrt{25/2} =$ _____ i) $\frac{5\sqrt{2}}{2}$ ii) $5\sqrt{2}$ iii) $2\sqrt{5}$ iv) none of these

c) Find the common surd factor between $\sqrt{8}$ and $\sqrt{49/2}$

i) $\sqrt{3}$ ii) $\sqrt{5}$ iii) $\sqrt{2}$ iv) none of these

d) $\sqrt{108} - \sqrt{75} =$ _____ i) $3\sqrt{3}$ ii) $\sqrt{3}$ iii) $5\sqrt{3}$ iv) none of these

e) $\sqrt{98} + \sqrt{8} - 2\sqrt{32} =$ _____ i) $2\sqrt{2}$ ii) $\sqrt{2}$ iii) $3\sqrt{2}$ iv) none of these

f) $3\sqrt{48} - 4\sqrt{75} + \sqrt{192} =$ _____ i) $2\sqrt{3}$ ii) $\sqrt{3}$ iii) 0 iv) none of these

g) Simplest value of $\sqrt{12} + \sqrt{18} + \sqrt{27} - \sqrt{32} =$ _____ i) $5\sqrt{3} - \sqrt{2}$

ii) $5\sqrt{3} + 7\sqrt{2}$ iii) $7\sqrt{2} - \sqrt{3}$ iv) none of these

h) what should be added with $\sqrt{5} + \sqrt{3}$ to get $2\sqrt{5}$.

i) $\sqrt{3} - \sqrt{5}$ ii) $\sqrt{5} - \sqrt{3}$ iii) $\sqrt{5} + \sqrt{3}$ iv) none of these

i) What to subtract from $7 - \sqrt{3}$ to get $3 + \sqrt{3}$ i) $4 - 2\sqrt{3}$ ii) $4 + 2\sqrt{3}$ iii) $2 - 2\sqrt{3}$ iv)

none of these

j) Subtract $(-5 + 3\sqrt{11})$ from $(10 - \sqrt{11})$.

i) $5 - 2\sqrt{11}$ ii) $15 - 4\sqrt{11}$ iii) $15 - 2\sqrt{11}$ iv) none of these

k) $2\sqrt{5} \times 3\sqrt{2} = \underline{\hspace{2cm}}$ i) $6\sqrt{10}$ ii) $10\sqrt{6}$ iii) $6\sqrt{7}$ iv) none of these

l) Rationalising $\sqrt{13}/\sqrt{5}$ we get i) $\sqrt{65}/\sqrt{5}$ ii) $\sqrt{75}/\sqrt{5}$ iii) $\sqrt{65}/5$ iv) none of these

m) rationalizing factor of $\sqrt{7}$ i) $\sqrt{7}$ ii) $2\sqrt{7}$ iii) (i) and (ii) both iv) none of these

n) Rationalising factor of $7 - \sqrt{3}$ i) $7 + \sqrt{3}$ ii) $-7 + \sqrt{3}$ iii) both (i) and (ii)

iv) none of these

o) Rationalising $6/\sqrt{7}$ we get i) 42 ii) $6\sqrt{7}/7$ iii) $6\sqrt{7}$ iv) none of these

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