Exponents: Worksheet -3

1) $\left(27^{-2}\right)^{\frac{1}{3}} \times \sqrt{4^3}$ [ ]

a) $\frac{7}{9}$ b) $\frac{8}{9}$ c) $\frac{9}{9}$ d) $\frac{10}{9}$

2) If $9^{1/2} \times 3^m = (27)^m$ then m = [ ]

a) $\frac{1}{4}$ b) $\frac{1}{5}$ c) $\frac{1}{3}$ d) $\frac{1}{2}$

3) $\frac{x-y}{\sqrt{x}+\sqrt{y}}$ [ ]

a) $\sqrt{x-y}$ b) $\sqrt{x}-\sqrt{y}$ c) $-\left(\sqrt{x}+\sqrt{y}\right)$ d) $\frac{1}{2}-\left(\sqrt{x}-\sqrt{y}\right)$

4) $\sqrt{9^x} = \sqrt[3]{9^2}$ then x [ ]

a) $\frac{2}{3}$ b) $\frac{4}{3}$ c) $\frac{1}{3}$ d) $\frac{5}{3}$

5) If $\sqrt{a} = 0.2$ then $a^{3/2}$ [ ]

a) 0.8 b) 0.4 c) 0.08 d) 0.008

6) In $\sqrt[n]{a}$, 'n' is called as [ ]

a) Radical b) Radicand c) Order d) Radical Sins.

7) Exponents are shortcuts to refer to [ ]

a) addicting a number to itself

b) subtracting a number to it self

c) multiplying a number by itself

d) dividing a number by it self

8) If $x^{x\sqrt{x}} = (x.\sqrt{x})^{x}$ then x [ ]

a) $\frac{3}{2}$ b) $\frac{3}{4}$ c) $\frac{9}{2}$ d) $\frac{9}{4}$

9) If $27^{k} = \frac{9}{3^{k}}$ then $\frac{1}{k^{2}}$ [ ]

a) 3 b) 4 c) – 2 d) – 4

10) $(4^{0} - 3^{0}) \times 6^{0}$ = [ ]

a) 0 b) 1 c) 6 d) None

11) $(0.0001)^{3/4}$ = [ ]

a) 0.001 b) 0.0001 c) 0.01 d) None

12) $\frac{3^{8}(11111)^{4}}{(33333)^{4}}$ [ ]

a) 32 b) 27 c) 81 d) 9

13) $(x^{-1} + y^{-1})^{-1}$ [ ]

a) $\left(\frac{x+y}{xy}\right)$ b) $\frac{x-y}{x+y}$ c) $\left(\frac{xy}{x+y}\right)$ d) None

14) If $2^{n} = 64$ then 2^{n-2} [ ]

a) 64 b) 32 c) 16 d) 8

15) $(2007)^{2} - 2006 \times 2008$ = [ ]

a) 2 b) 3 c) 1 d) 0