EduSahara™ Learning Center Assignment

Grade : Class VIII, SSC
Chapter : Exponents and Powers
Name : Exercise3
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1. $[7^{-5}]^{-4}$ =

(i) 10^{20} (ii) 7^{19} (iii) 7^{21}

(iv) 5^{20} (v) 7^{20}

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2. $[3^{-3}]^{3/2}$ =

(i) 3^{-5} (ii) $3^{\left(\frac{-9}{2}\right)}$ (iii) $3^{\left(\frac{-17}{4}\right)}$

(iv) $6^{\left(\frac{-9}{2}\right)}$ (v) 1

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3. $[(-9)^{-4}]^{-2}$ =

(i) $(-9)^{8}$ (ii) $(-12)^{8}$ (iii) $(-9)^{9}$

(iv) $(-6)^{8}$ (v) $(-9)^{7}$

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4. $\left[(-9)^{\left(\frac{-3}{5}\right)}\right]^{2}$ =

(i) $\left(\frac{-4}{3}\right)$ (ii) $\left(\frac{-6}{5}\right)$ (iii) $\left(\frac{-6}{5}\right)$

(-9) (-11) (-9)

(iv) $(-7)^{\left(\frac{-6}{5}\right)}$ (v) $(-9)^{\left(\frac{-8}{7}\right)}$

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5. $\left[\left(\frac{8}{7}\right)^{-5}\right]^{-3}$ =

(i) $\left(\frac{10}{7}\right)^{15}$ (ii) $\left(\frac{8}{7}\right)^{16}$ (iii) $\left(\frac{8}{7}\right)^{15}$

(iv) $\left(\frac{6}{7}\right)^{15}$ (v) $\left(\frac{8}{7}\right)^{14}$

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6. $\left[\left(\frac{-2}{9}\right)^{-2}\right]^{-2/3}$ =

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

(iv) $\left(\frac{-2}{9}\right)^{(4/3)}$

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7. $\left[\left(\frac{-7}{9}\right)^{(-4/5)}\right]^{5}$ =

(i) $\left(\frac{-5}{9}\right)^{-4}$ (ii) $(-1)^{-4}$ (iii) $\left(\frac{-7}{9}\right)^{-3}$

(iv) $\left(\frac{-7}{9}\right)^{-4}$ (v) $\left(\frac{-7}{9}\right)^{-5}$

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8. $\left[\left(\frac{-9}{7}\right)^{(-4/3)}\right]^{-5/4}$ =

(i) $(-1)^{\left(\frac{5}{3}\right)}$ (ii) $\left(\frac{-11}{7}\right)^{(5/3)}$ (iii) $\left(\frac{-9}{7}\right)^{3}$

(iv) $\left(\frac{-9}{7}\right)^{(5/3)}$ (v) $\left(\frac{-9}{7}\right)^{(7/5)}$

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9. $[5^{-2}]^{-3}$ =

(i) 5^5 (ii) 2^6 (iii) 7^6

(iv) 5^6 (v) 5^7

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10. $[(-2)^2]^{4/3}$ =

(i) $(-4)^{\left(\frac{8}{3}\right)}$ (ii) $(-2)^{\left(\frac{12}{5}\right)}$ (iii) $(-2)^{\left(\frac{8}{3}\right)}$

(iv) $(-2)^{\left(\frac{10}{3}\right)}$ (v) $(-2)^4$

11. $\left[(-2)^{\left(\frac{-5}{3}\right)}\right]^{5}$ =

(i) $(-5)^{\left(\frac{-25}{3}\right)}$ (ii) $(-2)^{\left(\frac{-41}{5}\right)}$ (iii) $(-2)^{\left(\frac{-23}{3}\right)}$

(iv) $(-2)^{\left(\frac{-25}{3}\right)}$ (v) $(-2)^{-9}$

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12. $\left[(-7)^{\left(\frac{5}{3}\right)}\right]^{-2}$ =

(i) $(-4)^{\left(\frac{-10}{3}\right)}$ (ii) $(-7)^{\left(\frac{-10}{3}\right)}$ (iii) $(-7)^{-4}$

(iv) $(-7)^{\left(\frac{-16}{5}\right)}$ (v) $(-9)^{\left(\frac{-10}{3}\right)}$

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13. $\left[\left(\frac{-4}{9}\right)^{3}\right]^{2}$ =

(i) $\left(\frac{-2}{3}\right)^{6}$ (ii) $\left(\frac{-4}{9}\right)^{7}$ (iii) $\left(\frac{-2}{9}\right)^{6}$

(iv) $\left(\frac{-4}{9}\right)^{5}$ (v) $\left(\frac{-4}{9}\right)^{6}$

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14. $\left[\left(\frac{-8}{5}\right)^{-2}\right]^{-4/3}$ =

(i) $\left(\frac{-8}{5}\right)^{(8/3)}$ (ii) $(-2)^{\left(\frac{8}{3}\right)}$ (iii) $\left(\frac{-8}{5}\right)^{(12/5)}$

(iv) $\left(\frac{-8}{5}\right)^{4}$ (v) $\left(\frac{-6}{5}\right)^{(8/3)}$

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

(i) $\left(\frac{9}{8}\right)^{-5}$ (ii) $\left(\frac{9}{8}\right)^{-3}$ (iii) $\left(\frac{7}{8}\right)^{-4}$

(iv) $\left(\frac{11}{8}\right)^{-4}$ (v) $\left(\frac{9}{8}\right)^{-4}$

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16. $\left[\left(\frac{5}{2}\right)^{(-5/2)}\right]^{5}$ =

(i) $\left(\frac{3}{2}\right)^{(-25/2)}$ (ii) $\left(\frac{5}{2}\right)^{(-49/4)}$ (iii) $\left(\frac{5}{2}\right)^{(-25/2)}$

(iv) $\left(\frac{7}{2}\right)^{(-25/2)}$ (v) $\left(\frac{5}{2}\right)^{-13}$

Assignment Key

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