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(Affiliated to CBSE up to +2 Level)

CLASS: VIII   SUB.: MATHS (NCERT BASED)   DATE: 30 -07-2020
REVISION (EX. 12.1 AND 12.2)

1. Evaluate.

    (i) 3^{-2} (ii) $(-4)^{-2}$ (iii) $\left(\dfrac{1}{2}\right)^{-5}$

2. Simplify and express the result in power notation with positive exponent.

    (i) $(-4)^5 \div (-4)^8$ (ii) $\left(\dfrac{1}{2^3}\right)^2$

    (iii) $(-3)^4 \times \left(\dfrac{5}{3}\right)^4$ (iv) $(3^{-7} \div 3^{-10}) \times 3^{-5}$ (v) $2^{-3} \times (-7)^{-3}$

3. Find the value of.

    (i) $(3^0 + 4^{-1}) \times 2^2$ (ii) $(2^{-1} \times 4^{-1}) \div 2^{-2}$ (iii) $\left(\dfrac{1}{2}\right)^{-2} + \left(\dfrac{1}{3}\right)^{-2} + \left(\dfrac{1}{4}\right)^{-2}$

    (iv) $(3^{-1} + 4^{-1} + 5^{-1})^0$ (v) $\left\{\left(\dfrac{-2}{3}\right)^{-2}\right\}^2$

4. Evaluate (i) $\dfrac{8^{-1} \times 5^3}{2^{-4}}$ (ii) $(5^{-1} \times 2^{-1}) \times 6^{-1}$

5. Find the value of m for which $5^m \div 5^{-3} = 5^5$.

6. Evaluate (i) $\left\{\left(\dfrac{1}{3}\right)^{-1} - \left(\dfrac{1}{4}\right)^{-1}\right\}^{-1}$ (ii) $\left(\dfrac{5}{8}\right)^{-7} \times \left(\dfrac{8}{5}\right)^{-4}$

7. Simplify.

    (i) $\dfrac{25 \times t^{-4}}{5^{-3} \times 10 \times t^{-8}}$ $(t \neq 0)$ (ii) $\dfrac{3^{-5} \times 10^{-5} \times 125}{5^{-7} \times 6^{-5}}$

8. Express the following numbers in standard form.

    (i) 0.0000000000085   (ii) 0.00000000000942

    (iii) 6020000000000000   (iv) 0.00000000837

    (v) 31860000000

9. Express the following numbers in usual form.

    (i) 3.02×10^{-6} (ii) 4.5×10^4 (iii) 3×10^{-8}

    (iv) 1.0001×10^9 (v) 5.8×10^{12} (vi) 3.61492×10^6

10. Express the number appearing in the following statements in standard form.

    (i) 1 micron is equal to $\dfrac{1}{1000000}$ m.

    (ii) Charge of an electron is 0.000,000,000,000,000,000,16 coulomb.

    (iii) Size of a bacteria is 0.0000005 m

    (iv) Size of a plant cell is 0.00001275 m

    (v) Thickness of a thick paper is 0.07 mm

11. In a stack there are 5 books each of thickness 20mm and 5 paper sheets each of thickness 0.016 mm. What is the total thickness of the stack.