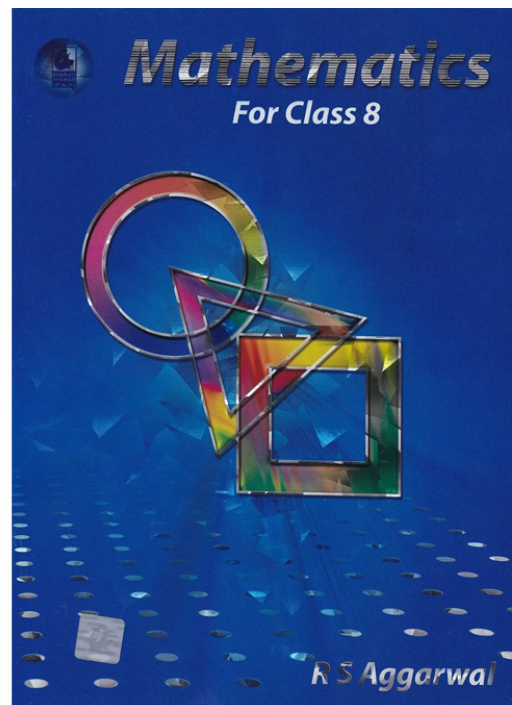


RS Aggarwal Solutions for Class 8 Maths Chapter 2–Exponents

Class 8 - Chapter 2 Exponents



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Postal Address

IndCareer.com, 52, Shilpa Nagar, Somalwada Nagpur - 440015
Maharashtra, India

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RS Aggarwal Solutions for Class 8 Maths Chapter 2–Exponents

Class 8: Maths Chapter 2 solutions. Complete Class 8 Maths Chapter 2 Notes.

RS Aggarwal Solutions for Class 8 Maths Chapter 2–Exponents

RS Aggarwal 8th Maths Chapter 2, Class 8 Maths Chapter 2 solutions

Exercise 2A

Q1

Answer :

$$(i) 4^{-3} = \frac{1}{4^3} = \frac{1}{64}$$

$$(ii) \left(\frac{1}{2}\right)^{-5} = 2^5 = 32$$

$$(iii) \left(\frac{4}{3}\right)^{-3} = \left(\frac{3}{4}\right)^3 = \frac{3^3}{4^3} = \frac{27}{64}$$

$$(iv) (-3)^{-4} = \left(\frac{-1}{3}\right)^4 = \frac{(-1)^4}{3^4} = \frac{1}{81}$$

$$(v) \left(\frac{-2}{3}\right)^{-5} = \left(\frac{-3}{2}\right)^5 = \frac{(-3)^5}{2^5} = \frac{-243}{32}$$

Q2

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-2-exponent/>

Answer :

$$(i) \left(\frac{5}{3}\right)^2 \times \left(\frac{5}{3}\right)^2 = \left(\frac{5}{3}\right)^4 = \frac{5^4}{3^4} = \frac{625}{81}$$

$$(ii) \left(\frac{5}{6}\right)^6 \times \left(\frac{5}{6}\right)^{-4} = \left(\frac{5}{6}\right)^{(6+(-4))} = \left(\frac{5}{6}\right)^{(6-4)} = \left(\frac{5}{6}\right)^2 = \frac{5^2}{6^2} = \frac{25}{36}$$

$$(iii) \left(\frac{2}{3}\right)^{-3} \times \left(\frac{2}{3}\right)^{-2} = \left(\frac{2}{3}\right)^{(-3-2)} = \left(\frac{2}{3}\right)^{-5} = \left(\frac{3}{2}\right)^5 = \frac{3^5}{2^5} = \frac{243}{32}$$

$$(iv) \left(\frac{9}{8}\right)^{-3} \times \left(\frac{9}{8}\right)^2 = \left(\frac{9}{8}\right)^{(-3+2)} = \left(\frac{9}{8}\right)^{-1} = \frac{8}{9}$$

Q3

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-2-exponents/>

Answer :

(i)

$$\begin{aligned}\left(\frac{5}{9}\right)^{-2} \times \left(\frac{3}{5}\right)^{-3} \times \left(\frac{3}{5}\right)^0 &= \left(\frac{5}{9}\right)^{-2} \times \left(\frac{3}{5}\right)^{-3+0} \\ &= \left(\frac{5}{9}\right)^{-2} \times \left(\frac{3}{5}\right)^{-3} = \left(\frac{9}{5}\right)^2 \times \left(\frac{5}{3}\right)^3 \\ &= \frac{9^2}{5^2} \times \frac{5^3}{3^3} \\ &= \frac{(3^2)^2}{5^2} \times \frac{5^3}{3^3} \\ &= \frac{3^4}{5^2} \times \frac{5^3}{3^3} = (3^{(4-3)}) \times (5^{(3-2)}) = 3 \times 5 = 15\end{aligned}$$

(ii)

$$\begin{aligned}\left(\frac{-3}{5}\right)^{-4} \times \left(\frac{-2}{5}\right)^2 &= \left(\frac{5}{-3}\right)^4 \times \left(\frac{-2}{5}\right)^2 \\ &= \frac{5^4}{-3^4} \times \frac{-2^2}{5^2} = 5^{(4-2)} \times \frac{-2^2}{-3^4} = 5^2 \times \frac{-2^2}{-3^4} \\ &= 25 \times \frac{4}{81} = \frac{100}{81}\end{aligned}$$

(iii)

$$\begin{aligned}\left(\frac{-2}{3}\right)^{-3} \times \left(\frac{-2}{3}\right)^{-2} &= \left(\frac{3}{-2}\right)^3 \times \left(\frac{3}{-2}\right)^2 \\ &= \frac{3^3}{-2^3} \times \frac{3^2}{-2^2} = \frac{3^{(3+2)}}{-2^{(3+2)}} = \frac{3^5}{-2^5} = \frac{-243}{32}\end{aligned}$$

Q4

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-2-exponent-s/>

Answer :

$$(i) \left\{ \left(\frac{-2}{3} \right)^2 \right\}^{-2} = \left(\frac{-2}{3} \right)^{2 \times (-2)} = \left(\frac{-2}{3} \right)^{-4} = \left(\frac{3}{-2} \right)^4 = \frac{3^4}{(-2)^4} = \frac{3^4}{2^4} = \frac{81}{16}$$

$$(ii) \left[\left\{ \left(\frac{-1}{3} \right)^2 \right\}^{-2} \right]^{-1} = \left[\left(\frac{-1}{3} \right)^{2 \times (-2)} \right]^{-1} = \left[\left(\frac{-1}{3} \right)^{-4} \right]^{-1} = \left(\frac{-1}{3} \right)^{-4 \times -1} = \left(\frac{-1}{3} \right)^4 = \frac{-1^4}{3^4} = \frac{1^4}{3^4} = \frac{1}{81}$$

$$(iii) \left\{ \left(\frac{3}{2} \right)^{-2} \right\}^2 = \left(\frac{3}{2} \right)^{-2 \times 2} = \left(\frac{3}{2} \right)^{-4} = \left(\frac{2}{3} \right)^4 = \frac{2^4}{3^4} = \frac{16}{81}$$

Q5

Answer :

$$\left\{ \left(\frac{1}{3} \right)^{-3} - \left(\frac{1}{2} \right)^{-3} \right\} \div \left(\frac{1}{4} \right)^{-3} = \left\{ 3^3 - 2^3 \right\} \div 4^3 = \{27 - 8\} \div 64 = \frac{19}{64}$$

Q6

Answer :

$$\left\{ \left(\frac{4}{3} \right)^{-1} - \left(\frac{1}{4} \right)^{-1} \right\}^{-1} = \left\{ \left(\frac{3}{4} \right)^1 - \left(\frac{4}{1} \right)^1 \right\}^{-1} = \left\{ \left(\frac{3}{4} \right) - \left(\frac{4}{1} \right) \right\}^{-1}$$

The L. C. M. of 4 and 1 is 4.

$$\begin{aligned} \therefore \left\{ \left(\frac{3 \times 1}{4 \times 1} \right) - \left(\frac{4 \times 4}{1 \times 4} \right) \right\}^{-1} \\ = \left\{ \frac{3}{4} - \frac{16}{4} \right\}^{-1} = \left\{ \frac{3-16}{4} \right\}^{-1} = \left\{ \frac{-13}{4} \right\}^{-1} = \left\{ \frac{4}{-13} \right\}^1 = \frac{4}{-13} \\ = \frac{4 \times -1}{-13 \times -1} = \frac{-4}{13} \end{aligned}$$

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-2-exponent-s/>

Q7

Answer :

$$\left[\left(5^{-1} \times 3^{-1} \right)^{-1} \div 6^{-1} \right] = \left[\left(\frac{1}{5} \times \frac{1}{3} \right)^{-1} \div \frac{1}{6} \right] = \left[\left(\frac{1}{15} \right)^{-1} \div \frac{1}{6} \right] = [15 \times 6] = 90$$

Q8

Answer :

(i)

$$\begin{aligned} (2^0 + 3^{-1}) \times 3^2 &= \left(1 + \frac{1}{3} \right) \times 3^2 \quad (\text{because } 2^0 = 1 \text{ and } 3^{-1} = \frac{1}{3}) \\ &= \left(\frac{1 \times 3}{1 \times 3} + \frac{1 \times 1}{3 \times 1} \right) \times 3^2 = \left(\frac{3}{3} + \frac{1}{3} \right) \times 3^2 = \left(\frac{4}{3} \right) \times 3^2 = 4 \times 3^{(2-1)} = 4 \times 3 = 12 \end{aligned}$$

(ii)

$$\begin{aligned} (2^{-1} \times 3^{-1}) \div 2^{-3} &= \left(\frac{1}{2} \times \frac{1}{3} \right) \div \left(\frac{1}{2} \right)^3 \\ \left(\frac{1}{6} \right) \div \frac{1^3}{2^3} &= \left(\frac{1}{6} \right) \div \left(\frac{1}{8} \right) = \frac{1}{6} \times 8 = \frac{8}{6} = \frac{4}{3} \end{aligned}$$

(iii)

$$\left(\frac{1}{2} \right)^{-2} + \left(\frac{1}{3} \right)^{-2} + \left(\frac{1}{4} \right)^{-2} = \left(\frac{2}{1} \right)^2 + \left(\frac{3}{1} \right)^2 + \left(\frac{4}{1} \right)^2 = 2^2 + 3^2 + 4^2 = 4 + 9 + 16 = 29$$

Q9

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-2-exponent-s/>

Answer :

Consider the left side:

$$\left(\frac{5}{3}\right)^{-4} \times \left(\frac{5}{3}\right)^{-5} = \left(\frac{5}{3}\right)^{(-4+(-5))} = \left(\frac{5}{3}\right)^{-9}$$

Given:

$$\left(\frac{5}{3}\right)^{-9} = \left(\frac{5}{3}\right)^{3x}$$

Comparing the powers:

$$-9 = 3x \Rightarrow x = -3$$

Q10

Answer :

Given:

$$\left(\frac{4}{9}\right)^4 \times \left(\frac{4}{9}\right)^{-7} = \left(\frac{4}{9}\right)^{2x-1}$$

$$\therefore \left(\frac{4}{9}\right)^{(4-7)} = \left(\frac{4}{9}\right)^{-3} = \left(\frac{4}{9}\right)^{2x-1}$$

$$\Rightarrow 2x - 1 = -3$$

$$2x = -3 + 1 = -2$$

$$\Rightarrow x = -1$$

Q11

Q12

Answer :

Let the number be x .

$$\begin{aligned}\therefore \left(\frac{-2}{3}\right)^{-3} \div x &= \left(\frac{4}{27}\right)^{-2} \\ \Rightarrow \left(\frac{3}{-2}\right)^3 \div x &= \left(\frac{27}{4}\right)^2 \\ \Rightarrow \left(\frac{-3}{2}\right)^3 \div x &= \left(\frac{27}{4}\right)^2 \\ \Rightarrow \left(\frac{-3}{2}\right)^3 \times \frac{1}{x} &= \left(\frac{27}{4}\right)^2 \\ \Rightarrow \frac{-3^3}{2^3} \times \frac{1}{x} &= \frac{27^2}{4^2} \\ \Rightarrow \frac{-27}{8} \times \frac{1}{x} &= \frac{27^2}{4^2} = \frac{27 \times 27}{4 \times 4} = \frac{27 \times 27}{4 \times 2 \times 2} = \frac{27 \times 27}{8 \times 2} \\ \therefore \frac{1}{x} &= \left(\frac{27 \times 27}{8 \times 2}\right) \div \left(\frac{-27}{8}\right) \\ \Rightarrow x &= \frac{\left(\frac{-27}{8}\right)}{\left(\frac{27 \times 27}{8 \times 2}\right)} = \left(\frac{-27}{8}\right) \times \left(\frac{8 \times 2}{27 \times 27}\right) = \frac{-2}{27}\end{aligned}$$

Q13

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-2-exponents/>

Answer :

Given:

$$5^{2x+1} \div 25 = 125$$

We know :

$$25 = 5 \times 5 = 5^2$$

$$125 = 5 \times 5 \times 5 = 5^3$$

$$\therefore \frac{5^{2x+1}}{5^2} = 5^3 \Rightarrow 5^{[(2x+1)-2]} = 5^3$$

$$\text{or } 5^{[(2x+1)-2]} = 5^{[2x-1]} = 5^3$$

$$\Rightarrow 2x - 1 = 3$$

$$2x = 3 + 1 = 4$$

$$x = \frac{4}{2} = 2$$

$$\therefore x = 2$$

Exercise 2B

Q1

Answer :

(i) $57.36 = 5.736 \times 10$

(ii) $3500000 = 3.5 \times 10^6$

(iii) $273000 = 2.73 \times 10^5$

(iv) $168000000 = 1.68 \times 10^8$

(v) $4630000000000 = 4.63 \times 10^{12}$

(vi) $345 \times 10^5 = 3.45 \times 10^7$

Q2

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-2-exponents/>

Answer :

$$(i) 3.74 \times 10^5 = \frac{374}{100} \times 10^5 = \frac{374 \times 10^5}{10^2} = 374 \times 10^{(5-2)} = 374 \times 10^3 = 374000$$

$$(ii) 6.912 \times 10^8 = \frac{6912}{1000} \times 10^8 = \frac{6912 \times 10^8}{10^3} = 6912 \times 10^{(8-3)} = 6912 \times 10^5 = 691200000$$

$$(iii) 4.1253 \times 10^7 = \frac{41253}{10000} \times 10^7 = \frac{41253 \times 10^7}{10^4} = 41253 \times 10^{(7-4)} = 41253 \times 10^3 = 41253000$$

$$(iv) 2.5 \times 10^4 = \frac{25}{10} \times 10^4 = \frac{25 \times 10^4}{10} = 25 \times 10^{(4-1)} = 25 \times 10^3 = 25000$$

$$(v) 5.17 \times 10^6 = \frac{517}{100} \times 10^6 = \frac{517 \times 10^6}{10^2} = 517 \times 10^{(6-2)} = 517 \times 10^4 = 5170000$$

$$(vi) 1.679 \times 10^9 = \frac{1679}{1000} \times 10^9 = \frac{1679 \times 10^9}{10^3} = 1679 \times 10^{(9-3)} = 1679 \times 10^6 = 1679000000$$

Q3

Answer :

(i) The height of the Mount Everest is 8848 m.

In standard form, we have:

$$8848 = 8.848 \times 1000 \text{ m} = 8.848 \times 10^3 \text{ m}$$

(ii) The speed of light is 300000000 m/s.

In standard form, we have:

$$300000000 = 3 \times 100000000 \text{ m/s} = 3 \times 10^8 \text{ m/s}$$

(iii) The Sun–Earth distance is 149600000000 m.

In standard form, we have:

$$149600000000 = 1496 \times 100000000 = 1.496 \times 1000 \times 100000000 = 1.496 \times 10^3 \times 10^8 = 1.496 \times 10^{11} \text{ m}$$

Q4

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-2-exponent-s/>

Answer :

Mass of the Earth = 5.97×10^{24} kg

Now, $5.97 \times 10^{24} = 5.97 \times 10^{(2+22)} = 5.97 \times 10^2 \times 10^{22} = 597 \times 10^{22}$

So, the mass of the Earth can also be written as 597×10^{22} kg.

Mass of the Moon = 7.35×10^{22} kg

Sum of the masses of the Earth and the Moon:

$$= (597 \times 10^{22}) + (7.35 \times 10^{22}) = (597 + 7.35) \times 10^{22} = 604.35 \times 10^{22} \text{ kg}$$

$$= 6.0435 \times 100 \times 10^{22} = 6.0435 \times 10^2 \times 10^{22} = 6.0435 \times 10^{(2+22)} = 6.0435 \times 10^{24} \text{ kg}$$

Q5

Answer :

$$(i) 0.0006 = \frac{6}{10^4} = 6 \times 10^{-4}$$

$$(ii) 0.00000083 = \frac{83}{10^8} = \frac{8.3 \times 10}{10^8} = 8.3 \times 10^{(1-8)} = 8.3 \times 10^{-7}$$

$$(iii) 0.0000000534 = \frac{534}{10^{10}} = \frac{5.34 \times 10^2}{10^{10}} = 5.34 \times 10^{(2-10)} = 5.34 \times 10^{-8}$$

$$(iv) 0.0027 = \frac{27}{10^4} = \frac{2.7 \times 10}{10^4} = 2.7 \times 10^{(1-4)} = 2.7 \times 10^{-3}$$

$$(v) 0.00000165 = \frac{165}{10^8} = \frac{1.65 \times 10^2}{10^8} = 1.65 \times 10^{(2-8)} = 1.65 \times 10^{-6}$$

$$(vi) 0.00000000689 = \frac{689}{10^{11}} = \frac{6.89 \times 10^2}{10^{11}} = 6.89 \times 10^{(2-11)} = 6.89 \times 10^{-9}$$

Q6

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-2-exponent-s/>

Answer :

$$(i) 1 \text{ micron} = \frac{1}{1000000} \text{ m} = 1 \times 10^{-6} \text{ m}$$

$$(ii) 0.0000004 \text{ m} = \frac{4}{10^7} \text{ m} = (4 \times 10^{-7}) \text{ m}$$

$$(iii) \text{ Thickness of paper} = 0.03 \text{ mm} = \frac{3}{10^2} \text{ mm} = (3 \times 10^{-2}) \text{ mm}$$

Q7

Answer :

$$(i) 2.06 \times 10^{-5} = \frac{206}{100} \times \frac{1}{10^5} = \frac{206}{10^2 \times 10^5} = \frac{206}{10^{(5+2)}} = \frac{206}{10^7} = \frac{206}{10000000} = 0.0000206$$

$$(ii) 5 \times 10^{-7} = \frac{5}{10^7} = \frac{5}{10000000} = 0.0000005$$

$$(iii) 6.82 \times 10^{-6} = \frac{682}{100} \times \frac{1}{10^6} = \frac{682}{10^2 \times 10^6} = \frac{682}{10^{(2+6)}} = \frac{682}{10^8} = \frac{682}{100000000} = 0.00000682$$

$$(iv) 5.673 \times 10^{-4} = \frac{5673}{1000} \times \frac{1}{10^4} = \frac{5673}{10^3 \times 10^4} = \frac{5673}{10^{(3+4)}} = \frac{5673}{10^7} = \frac{5673}{10000000} = 0.0005673$$

$$(v) 1.8 \times 10^{-2} = \frac{18}{10} \times \frac{1}{10^2} = \frac{18}{10 \times 10^2} = \frac{18}{10^{(1+2)}} = \frac{18}{10^3} = \frac{18}{1000} = 0.018$$

$$(vi) 4.129 \times 10^{-3} = \frac{4129}{1000} \times \frac{1}{10^3} = \frac{4129}{10^3 \times 10^3} = \frac{4129}{10^{(3+3)}} = \frac{4129}{10^6} = \frac{4129}{1000000} = 0.004129$$

Exercise 2C

Q1

Answer :

$$(c) \frac{125}{8}$$

$$\left(\frac{2}{5}\right)^{-3} = \left(\frac{5}{2}\right)^3 = \frac{5^3}{2^3} = \frac{125}{8}$$

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Q2

Answer :

(d) $\frac{1}{81}$

$$(-3)^{-4} = \frac{1}{(-3)^4} = \frac{1}{(-1)^4 \times (3)^4} = \frac{1}{(3)^4} = \frac{1}{81}$$

Q3

Answer :

(b) $\frac{-1}{32}$

$$(-2)^{-5} = \frac{1}{(-2)^5} = \frac{1}{-32} = \frac{1 \times (-1)}{-32 \times (-1)} = \frac{-1}{32}$$

Q4

Answer :

(d) $\frac{1}{8}$

$$(2^{-5} \div 2^{-2}) = \left(\frac{1}{2^5} \div \frac{1}{2^2}\right) = \left(\frac{1}{32} \div \frac{1}{4}\right) = \left(\frac{1}{32} \times 4\right) = \frac{4}{32} = \frac{1}{8}$$

Q5

Answer :

(b) $\frac{60}{7}$

$$\begin{aligned} (3^{-1} + 4^{-1})^{-1} \div 5^{-1} &= \left(\frac{1}{3} + \frac{1}{4}\right)^{-1} \div \frac{1}{5} = \left(\frac{4+3}{12}\right)^{-1} \div \frac{1}{5} = \left(\frac{7}{12}\right)^{-1} \div \frac{1}{5} = \left(\frac{12}{7}\right) \div \frac{1}{5} = \frac{12}{7} \\ &\times 5 = \frac{60}{7} \end{aligned}$$

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Q6

Answer :

(c) 29

$$\begin{aligned}\left(\frac{1}{2}\right)^{-2} + \left(\frac{1}{3}\right)^{-2} + \left(\frac{1}{4}\right)^{-2} &= \left(\frac{2}{1}\right)^2 + \left(\frac{3}{1}\right)^2 + \left(\frac{4}{1}\right)^2 \\ &= 2^2 + 3^2 + 4^2 \\ &= 4 + 9 + 16 \\ &= 29\end{aligned}$$

Q7

Answer :

(a) $\frac{19}{64}$

$$\begin{aligned}\left\{\left(\frac{1}{3}\right)^{-3} - \left(\frac{1}{2}\right)^{-3}\right\} \div \left(\frac{1}{4}\right)^{-3} \\ &= \{3^3 - 2^3\} \div 4^3 \\ &= \{27 - 8\} \div 64 \\ &= 19 \div 64 \\ &= \frac{19}{64}\end{aligned}$$

Q8

Answer :

(a) $\frac{1}{16}$

$$\begin{aligned} & \left[\left\{ \left(-\frac{1}{2} \right)^2 \right\}^{-2} \right]^{-1} \\ &= \left[\left\{ -\frac{1}{2} \right\}^{-4} \right]^{-1} \\ &= \left(-\frac{1}{2} \right)^{(-4 \times -1)} \\ &= \left(-\frac{1}{2} \right)^4 \\ &= \frac{1}{16} \end{aligned}$$

Q9

Answer :

(d) 3

$$\begin{aligned} \left(\frac{7}{12} \right)^{-4} \times \left(\frac{7}{12} \right)^{3x} &= \left(\frac{7}{12} \right)^5 \\ \Rightarrow \left(\frac{7}{12} \right)^{-4+3x} &= \left(\frac{7}{12} \right)^5 \\ \Rightarrow 3x - 4 &= 5 \\ 3x &= 9 \\ \text{or } x &= \frac{9}{3} = 3 \end{aligned}$$

Q10

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-2-exponents/>

Answer :

(d) 2

$$(2^{3x-1} + 10) \div 7 = 6$$

$$\Rightarrow \frac{(2^{3x-1} + 10)}{7} = \frac{6}{1}$$

On cross multiplying :

$$(2^{3x-1} + 10) \times 1 = 6 \times 7 = 42$$

$$\Rightarrow 2^{3x-1} = 42 - 10$$

$$\Rightarrow 2^{3x-1} = 32$$

$$\Rightarrow 2^{3x-1} = 2^5$$

$$\Rightarrow 3x-1 = 5$$

$$\Rightarrow 3x = 6$$

Therefore, $x = 2$

Q11

Answer :

(c) 1

Using the law of exponents $\left(\frac{a}{b}\right)^0 = 1$:

$$\therefore \left(\frac{2}{3}\right)^0 = 1$$

Q12

Answer :

(c) $\frac{-3}{5}$

$$\left(\frac{-5}{3}\right)^{-1} = \left(\frac{3}{-5}\right)^1 = \frac{3}{-5} = \frac{3 \times (-1)}{-5 \times (-1)} = \frac{-3}{5}$$

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Q13

Answer :

(d) $\frac{-1}{8}$

$$\left(\frac{-1}{2}\right)^3 = \frac{-1^3}{2^3} = \frac{-1}{8}$$

Q14

Answer :

(b) $\frac{9}{16}$

$$\left(\frac{-3}{4}\right)^2 = \frac{(-3)^2}{(4)^2} = \frac{9}{16}$$

Q15

Answer :

(c) 3.67×10^6

$$3670000 = 367 \times 10^4 = 3.67 \times 100 \times 10^4 = 3.67 \times 10^2 \times 10^4 = 3.67 \times 10^{(2+4)} = 3.67 \times 10^6$$

Q16

Answer :

(b) 4.63×10^{-5}

$$0.0000463 = \frac{463}{10^7} = \frac{4.63 \times 10^2}{10^7} = 4.63 \times 10^{(2-7)} = 4.63 \times 10^{-5}$$

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Q17

Answer :

(a) 3.67

$$0.000367 \times 10^4 = \frac{367}{10^6} \times 10^4 = 367 \times 10^{(4-6)} = 367 \times 10^{-2} = \frac{367}{10^2} = \frac{367}{100} = 3.67$$



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- Chapter 2–Exponents
- Chapter 3–Squares and Square Roots
- Chapter 4–Cubes and Cube Roots
- Chapter 5–Playing with Numbers
- Chapter 6–Operations on Algebraic Expressions
- Chapter 7–Factorisation
- Chapter 8–Linear Equations
- Chapter 9–Percentage
- Chapter 10–Profit and Loss
- Chapter 11–Compound Interest
- Chapter 12–Direct and Inverse Proportion
- Chapter 13–Time and Work
- Chapter 14–Polygons
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- Chapter 16–Parallelograms
- Chapter 17–Construction of Quadrilaterals
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He was born on January 2, 1946 in a village of Delhi. He graduated from Kirori Mal College, University of Delhi. After completing his M.Sc. in Mathematics in 1969, he joined N.A.S. College, Meerut, as a lecturer. In 1976, he was awarded a fellowship for 3 years and joined the University of Delhi for his Ph.D. Thereafter, he was promoted as a reader in N.A.S. College, Meerut. In 1999, he joined M.M.H. College, Ghaziabad, as a reader and took voluntary retirement in 2003. He has authored more than 75 titles ranging from Nursery to M. Sc. He has also written books for competitive examinations right from the clerical grade to the I.A.S. level.

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Postal Address

IndCareer.com
52, Shilpa Nagar,
Somalwada
Nagpur - 440015
Maharashtra, India

WhatsApp: +91 9561 204 888

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