

Winter Break

Holiday Home Work

Sub - Maths

class - 8th

Session 2023-24

Q.1 Solve the following equations and check your results

(i) $\frac{2x}{3} - 1 = \frac{7x}{15} + 3$

(ii) $3m = 5m + \frac{8}{5}$

(iii) $\frac{3x}{2} - \frac{x}{3} + \frac{5x}{4} = 21$

(iv) $3(x-3) = 5(2x-1)$

(v) $3(5x-7) - 2(9x+11) = 4(8x-13) + 16$

Q.2 Simplify (i) $(-4)^5 \times (-4)^{10}$ (ii) $\left[\left(\frac{1}{3}\right)^{-2} - \left(\frac{1}{2}\right)^{-3} \right] \div \left(\frac{1}{4}\right)^{-2}$

(iii) $\frac{8^1 \times 5^3}{2^{-4}}$ (iv) $\frac{3^5 \times 10^5 \times 25}{5^6 \times 6^5}$

Q.3 Express the following numbers in usual form

(i) 3.6125×10^{-3} (ii) 5.8×10^{10} (iii) 3.01×10^2

Q.4 A train is moving at a uniform speed of 90 km/hr

(i) How far will it travel in 30 minutes?

(ii) Find the time required to cover a distance of 250 km

Q.5 A loaded truck travels 14 km in 25 minutes. If the speed remains the same, how far can it travel in 5 hours

Q.6 An electric pole, 14 metres high, casts a shadow of 20 metres. Find the height of tree that casts a shadow of 20 metres under similar conditions.

Q.7 Solve $3(5x+7) + 5(2x-11) = 3(8x-5) - 15$

Q.8 Find the value of m for which $5^m \div 5^3 = 625$

Q.9 $[4^{-1} - 5^{-1}]^2 \times \left(\frac{5}{8}\right)^{-1}$

Q.10 Eight taps through which water flows at the same rate can fill a tank in 27 minutes. If two taps go out of order, how long will the remaining taps take to fill the tank?

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