



MISSION CTET / STET



MATHS

Practice Paper

Set-1

अगर आपका भी है exam तो जरूर देख लें।

LIVE

06:00 PM





Q. यदि $0.235 + 0.325 + 2.35 - 5.32 = k - 3.59$ है, तो k में क्या जोड़ा जाए कि यह 2.82 हो जाए?

Q. If $0.235 + 0.325 + 2.35 - 5.32 = k - 3.59$, then what should be added in k so that it becomes 2.82?

$$\begin{array}{r} 0.235 \\ 0.325 \\ 2.350 \\ \hline 2.910 \\ 3.590 \\ \hline 6.500 \\ - 5.32 \\ \hline 1.18 \end{array}$$

$$2.91 - 5.32 + 3.59 = k$$

$$6.5 - 5.32 = k$$

$$k = 1.18$$

$$1.18 + ? = 2.82$$

$$? = 2.82 - 1.18$$

$$? = 1.64$$

(1) 1.44

(2) 1.54

(3) 1.64

(4) 1.74



Q. निम्नलिखित डेटा की माध्यिका, बहुलक और परास का माध्य क्या है?

Q. What is the mean of the median, mode and range of the following data?

5, 2, 8, 6, 12, 10, 17, 15, 22, 9, 17, 13

~~2, 5, 6, 8, 9, 10, 12, 13, 15, 17, 17, 22~~

- (1) 16
- (2) 17
- (3) 12
- (4) 18

(बहुलक) Mode = (17)

(परास) Range = (22 - 2) = (20)

माध्यिका (Median) = $\frac{10 + 12}{2} = \frac{22}{2} = (11)$

Mean

$$= \frac{11 + 17 + 20}{3} = \frac{48}{3} = (16)$$



Q. एक नियमित बहुभुज के सभी आंतरिक कोणों का योग 1080° होता है। इसके प्रत्येक बाह्य कोण की माप क्या है?

Q. The sum of all interior angles of a regular polygon is 1080° . What is the measure of its each exterior angle?

Sum of all interior angles of a regular polygon

$$1080^\circ = (n-2) \times 180^\circ$$

n = 8

✓ Each exterior angle = $\frac{360^\circ}{n} = \frac{360^\circ}{8} = 45^\circ$

- (1) 30°
- (2) 45°
- (3) 60°
- (4) 90°



Q. $\sqrt{0.04} + \sqrt{0.49} + \sqrt{1.44} + \sqrt{0.0225}$ का मान होगा ?

Q. What is the value of $\sqrt{0.04} + \sqrt{0.49} + \sqrt{1.44} + \sqrt{0.0225}$?

$$\begin{aligned} & \sqrt{\frac{0.04}{100}} + \sqrt{\frac{0.49}{100}} + \sqrt{\frac{1.44}{100}} + \sqrt{\frac{0.0225}{10000}} \\ &= \frac{2}{10} + \frac{7}{10} + \frac{12}{10} + \frac{15}{100} \\ &= \frac{20 + 70 + 120 + 15}{100} = \frac{225}{100} = 2.25 \end{aligned}$$

- (1) 2.10
- (2) 2.15
- (3) 2.25
- (4) 2.50



Q. एक घनाभ के तीन आसन्न फलकों के क्षेत्रफल 180 सेमी², 150 सेमी² और 120 सेमी² है। घनाभ का आयतन कितना है?

Q. The area of three adjacent faces of a

cuboid are 180 cm², 150 cm² and 120 cm²

$\sqrt{l^2 b^2}$
 $= l b h$
 ↓
 Volume of cuboid

What is the volume of the cuboid?

$lb = 180$ — (1)
 $bh = 150$ — (2)
 $hl = 120$ — (3)

$\frac{(1)}{(2)} \Rightarrow \frac{l}{h} = \frac{180}{150}$
 $l = \frac{6}{5}h$

$h^2 = 100$
 $h = 10$
 $l = \frac{6}{5} \times 10 = 12$
 $b = 15$
 $\Rightarrow lbh = 10 \times 12 \times 15 = 1800$

- (1) 1600 सेमी³/cm³
- (2) 1500 सेमी³/cm³
- (3) 1200 सेमी³/cm³
- (4) 1800 सेमी³/cm³



Q. 20000 प्राप्त करने के लिए
6066, 6606 और 6006 के योग
में क्या जोड़ा जाना चाहिए ?

Q. What should be added to
the sum of 6066, 6606 and
6006 to obtain 20000 ?

$$\begin{array}{r} 6066 \\ 6606 \\ + 6006 \\ \hline 18678 \end{array} + ? = 20000$$

$$\begin{array}{r} ? = 20000 \\ 18678 \\ \hline \times 1322 \\ \hline \end{array}$$

- (1) 1322
- (2) 1311
- (3) 1333
- (4) 1344



Q. $(\sqrt{8 + 2\sqrt{15}})$ बराबर होगा ?

Q. $(\sqrt{8 + 2\sqrt{15}})$ is equal to ?

$$\sqrt{8 + 2\sqrt{15}}$$

$(\sqrt{3})^2 + (\sqrt{5})^2 + 2(\sqrt{3})(\sqrt{5})$

$$= \sqrt{(\sqrt{5})^2 + (\sqrt{3})^2 + 2(\sqrt{5})(\sqrt{3})}$$

$A^2 + B^2 + 2AB$

$$= \sqrt{(\sqrt{5} + \sqrt{3})^2} = (\sqrt{5} + \sqrt{3})$$

(1) $(\sqrt{5} + \sqrt{3})$

(2) $(\sqrt{7} + \sqrt{3})$

(3) $(\sqrt{8} + \sqrt{3})$

(4) $(\sqrt{2} + \sqrt{3})$



Q. यदि किसी भिन्न के अंश में 20% और हर में 25% की वृद्धि कर दी जाए तो वह 8/5 हो जाता है, तो मूल भिन्न है :

Q. If we increased 20% in numerator and 25% in denominator of a fraction then it is 8/5, then the original fraction is:

- (1) 3/5
- (2) 5/3
- (3) 4/5
- (4) 5/4

Handwritten solution and notes:

Let the original fraction be $\frac{x}{y}$.

After increasing 20% in numerator and 25% in denominator, the fraction becomes $\frac{1.2x}{1.25y} = \frac{8}{5}$.

Cross-multiplying: $1.2x \cdot 5 = 8 \cdot 1.25y$

$6x = 10y$

$\frac{x}{y} = \frac{10}{6} = \frac{5}{3}$

Therefore, the original fraction is $\frac{5}{3}$.

Notes on fraction types:

- अनुचित भिन्न (Improper fraction) \Rightarrow $x > y$
- उचित भिन्न (Proper fraction) \Rightarrow $x < y$
- मिश्रित भिन्न (Mixed fraction) \Rightarrow $x > y$

Diagram illustrating the fraction $\frac{x}{y}$ with labels for Numerator (अंश) and Denominator (हर).



Q. 2020 में टीटू का वेतन रुपये 2,59,600 है। वर्ष 2018 से उसका वेतन प्रतिवर्ष क्रमशः 10% व 18% बढ़कर 2020 के वेतन तक पहुँच गया। वर्ष 2018 में उसका वेतन कितना था?

Q. Titu's salary in 2020 is Rs. 2,59,600. His salary for 2018 has risen annually by 10% and 18%

respectively to reach 2020 salary figures. What was his salary in 2018? = ~~2,59,600~~

$$x \times \frac{110}{100} \times \frac{118}{100} = 2,59,600$$

$$x = 2,00,000$$



- (1) 1,95,000
- (2) 1,75,000
- (3) 2,00,000
- (4) 2,15,000



Q. सौरभ ने दो वस्तुएँ प्रत्येक को 1,200 रुपये में खरीदा। उसने एक वस्तु को 8% लाभ पर तथा दूसरी को 6% हानि पर बेचा। इस पूरे सौदे में हुआ उसका लाभ/हानि प्रतिशत है?

Q. Saurabh bought two articles for Rs.1,200 each. He sold one article at 8% profit and the

other at 6% loss. What is his profit/loss percentage in this transaction?

Handwritten calculations and notes:

- CP (Cost Price) = 1200 + 1200 = 2400
- Profit on first article: $1200 \times 8\% = 96$
- Loss on second article: $1200 \times 6\% = 72$
- Net Profit: $96 - 72 = 24$
- Profit Percentage: $P\% = \frac{24}{2400} \times 100 = 1\%$
- Labels: "कुल लाभ" (Total Profit) and "सौरभ" (Saurabh)

- (a) हानि/Loss (1%)
- (b) लाभ/Profit (2%)
- (c) लाभ/Profit (1%)
- (d) हानि/Profit (2%)



Q. कोई धनराशि साधारण ब्याज की एक निश्चित दर से 4 वर्षों में 1200 रूपये और 7 वर्षों में 1560 रूपये हो जाती है, तो वह धनराशि ज्ञात कीजिये?

Q. A sum of money amounts to Rs. 1200 in 4 years and Rs. 1560 in 7 years at a certain rate of simple interest, then find that sum?

Handwritten notes: 4 yr → 1200, 7 yr → 1560, 360, 3 yr, 1 yr = 120, 4 ⇒ 480, P = 1200 - 480 = 720

(1) ₹

720

(2) ₹

740

(3) ₹

760

(4) ₹

780



Q. 9, 12 और 15 के लघुत्तम समापवर्त्य तथा 3, 5 और 7 के लघुत्तम समापवर्त्य के बीच अंतर है:

Q. Difference between the least common multiple of 9, 12 and 15 and the least common multiple of 3, 5 and 7 is:

Handwritten solution for finding the LCM of 9, 12, and 15:

$$\begin{array}{r} 2 \mid 9, 12, 15 \\ \hline 2 \mid 9, 6, 15 \\ \hline 3 \mid 9, 3, 15 \\ \hline 3 \mid 3, 1, 15 \\ \hline 5 \mid 1, 1, 15 \\ \hline = 180 \end{array}$$

Handwritten solution for finding the LCM of 3, 5, and 7:

$$\text{LCM}(3, 5, 7) = 105$$

Calculation of the difference:

$$180 - 105 = 75$$

Options:

- (1) 65
- (2) 75
- (3) 85
- (4) 95



Q. 4 मीटर 20 सेमी और 5 मीटर 40 सेमी के बीच का अनुपात क्या है?

$1\text{ m} = 100$

Q. What is the ratio

between 4 meters 20 cm, and 5 meters 40 cm?

- (1) 7:9
- (2) 5:7
- (3) 3:5
- (4) 2:3

7:9



Q. कोई एक्सप्रेस ट्रेन 216 किलोमीटर की दूरी 3 घंटे में तय करती है। इस ट्रेन की मीटर प्रति सेकण्ड में चाल है-

Q. An express train covers a distance of 216 km in 3 hours. Its speed in metre per second is-

- (1) 10
- (2) 15
- (3) 20
- (4) 25

Handwritten calculation for speed conversion:

$$\frac{\text{Km}}{\text{hr}} \times \frac{5}{18} = \text{m/sec}$$

The calculation shows $\frac{18}{5} \times x$ and $\frac{18}{5}$ with a checkmark, indicating the conversion factor used.



