

Foundation Batch

MATHS

Decimal & Fraction

LIVE 03-12-2024 07:00PM





Foundation Batch

MATHS



TYPE-I

Fraction (भिन्न)

$\rightarrow \frac{a}{b}$ ex $\frac{2}{3}, \frac{4}{9}, \frac{11}{12}$

Comparison of fractions

भिन्नो की तुलना

* ascending order $\rightarrow$ ^{आरोही क्रम} बढ़ता हुआ क्रम $(a < b < c < d)$

* Descending order $\rightarrow$ घटता हुआ क्रम $d > c > b > a$
_{अवरोही क्रम}

$$\frac{2}{5}, \frac{3}{7}$$

$$\boxed{\frac{2}{5} < \frac{3}{7}}$$

M-①

$$\text{LCM}(7, 5) = 35$$

$$\frac{2}{5} \times \frac{7}{7} = \frac{14}{35} < \frac{3}{7} \times \frac{5}{5} = \frac{15}{35}$$

M-②

$$\frac{2}{5} < \frac{3}{7} \quad \text{or} \quad \frac{2}{5} > \frac{3}{7}$$

M-③

$$\frac{200}{5} < \frac{300}{7}$$

$$\frac{2}{5} < \frac{3}{7}$$

M-④

$$\frac{2}{5} < \frac{3}{7}$$

LCM(3, 4)

⑫

$$8 < 9$$

$$1 \left(\frac{2}{3} \right), 2 \left(\frac{3}{5} \right), \frac{5}{9} > 4$$

8

6

5

$$\text{LCM} (1, 2, 4) = 4$$

સેવતે અડી

$$1\left(\frac{4}{5}, 1\left(\frac{6}{7}, 1\left(\frac{11}{12}\right), 2\left(\frac{9}{11}\right)\right.$$

↓
बड़ा

$$\frac{11}{12} \begin{matrix} \nearrow \\ \nwarrow \end{matrix} \frac{9}{11}$$

$$121 > 108$$

$$\left(\frac{11}{12}\right) > \frac{9}{11}$$

↑
है वैसे बड़ा

1. Which of the following fractions is the smallest?

निम्नलिखित में से कौन-सा भिन्न सबसे छोटा है?

$\frac{5}{11}$, $\frac{7}{12}$, $\frac{8}{13}$, $\frac{9}{17}$

- ~~(a)~~ $\frac{5}{11}$
(b) $\frac{7}{12}$
(c) $\frac{8}{13}$
(d) $\frac{9}{17}$

$6 \times \frac{5}{11} = \frac{30}{11}$
 $\frac{30}{11} = \frac{300}{110}$

$5 \times \frac{7}{12} = \frac{35}{12}$
 $\frac{35}{12} = \frac{350}{120}$

$5 \times \frac{8}{13} = \frac{40}{13}$
 $\frac{40}{13} = \frac{304}{104}$

$8 \times \frac{9}{17} = \frac{72}{17}$
 $\frac{72}{17} = \frac{408}{102}$

LCM
120

2. Which of the following fractions is the smallest?

निम्नलिखित में से कौन सी भिन्न सबसे छोटी है?

(a) $\frac{9^{20}}{11}$ 81

(b) $\frac{11^{100}}{12}$ 91

~~(c) $\frac{8^{100}}{13}$ = 61~~

(d) $\frac{10^{100}}{14}$ = 71

~~$\frac{9}{11}$~~
117

~~$\frac{11}{12}$~~
121

$\frac{8}{13}$
112

~~$\frac{10}{14}$~~
130

$2 \times \frac{9}{11}$
90

$1 \times \frac{11}{12}$
220

$5 \times \frac{8}{13}$
32

$4 \times \frac{10}{14}$
50

LCM = 20

RRB NTPC 09.03.2021 (Shift-II)



3. Find the difference between the largest and the smallest fraction among $\frac{2}{3}, \frac{3}{4}, \frac{4}{5}$ and $\frac{5}{6}$.

$\frac{2}{3}, \frac{3}{4}, \frac{4}{5}$ और $\frac{5}{6}$ में से सबसे बड़ी और सबसे छोटी भिन्न का अंतर ज्ञात कीजिए।

(a) $\frac{3}{5}$

(b) $\frac{1}{7}$

☒ (c) $\frac{1}{6}$

(d) $\frac{2}{5}$

least

Highest

$$\frac{2}{3}$$

$$\frac{5}{6}$$

$$\frac{5}{6} - \frac{2}{3} = \frac{5}{6} - \frac{4}{6} = \frac{1}{6}$$

RRB JE - 22/05/2019 (Shift-I)

4. Which of the following is the smallest fraction number?

निम्न में से सबसे छोटी भिन्न संख्या कौन सी है?

$$\frac{1}{10}, \frac{1}{100}, \frac{9}{1000}, \frac{500}{10000}$$

(a) $\frac{500}{10000}$

(b) $\frac{1}{100}$

(c) $\frac{1}{10}$

(d) $\frac{9}{1000}$

$$\frac{1000}{10000}$$

$$\frac{100}{10000}$$

$$\frac{90}{10000}$$

$$\frac{500}{10000}$$

RRB RPF Constable -17/01/2019

5. Which of the following fractions are in ascending order?

निम्नलिखित में से कौन-से भिन्न आरोही क्रम में हैं?

~~(a)~~ $\frac{12}{18}, \frac{14}{17}, \frac{16}{19}$

(b) $\frac{14}{17}, \frac{12}{18}, \frac{16}{19}$

(c) $\frac{16}{19}, \frac{14}{17}, \frac{12}{18}$

(d) $\frac{12}{18}, \frac{16}{19}, \frac{14}{17}$

$6 \times \frac{12}{18}, 3 \times \frac{14}{17}, 3 \times \frac{16}{19}$

$\frac{12}{18}$

$\frac{14}{17}$

$\frac{16}{19}$

$\text{LCM}(6, 3, 3)$
 $= 6$

$\frac{12}{18} < \frac{14}{17} < \frac{16}{19}$

RRB NTPC 05.03.2021 (Shift-II)

6. Select the option in which the decimal numbers 0.25, 1.24, 0.0882 and 2.67 are arranged in ascending order.

उस विकल्प का चयन कीजिए, जिसमें दशमलव संख्याएँ 0.25, 1.24, 0.0882 और 2.67 को आरोही क्रम में व्यवस्थित किया गया हो।

~~(a) 2.67, 1.24, 0.25, 0.0882~~

~~(b) 0.25, 1.24, 0.0882, 2.67~~

~~(c) 1.24, 0.25, 2.67, 0.0882~~

~~(d) 0.0882, 0.25, 1.24, 2.67~~

RRB NTPC 01.04.2021 (Shift-I)

7. Write the fractions $\frac{2}{3}, \frac{1}{6}, \frac{1}{5}, \frac{3}{7}$ in descending order.

भिन्नो $\frac{2}{3}, \frac{1}{6}, \frac{1}{5}, \frac{3}{7}$ को अवरोही क्रम मे लिखें।

(a) $\frac{3}{7}, \frac{2}{3}, \frac{1}{6}, \frac{1}{5}$

$$\frac{200}{3}$$

$$\frac{100}{6}$$

$$\frac{100}{5}$$

$$\frac{300}{7}$$

~~(b) $\frac{2}{3}, \frac{3}{7}, \frac{1}{5}, \frac{1}{6}$~~

$$\frac{66}{1}$$

$$1.6$$

$$20$$

$$42$$

(c) $\frac{3}{7}, \frac{1}{6}, \frac{1}{5}, \frac{2}{3}$

$$\frac{2}{3}$$

$$\frac{3}{7}$$

$$\frac{1}{5}$$

$$\frac{1}{6}$$

(d) $\frac{1}{6}, \frac{1}{5}, \frac{3}{7}, \frac{2}{3}$

RRB NTPC 15.03.2021 (Shift-II)

7. Write the fractions $\frac{2}{3}, \frac{1}{6}, \frac{1}{5}, \frac{3}{7}$ in descending order.

भिन्नो $\frac{2}{3}, \frac{1}{6}, \frac{1}{5}, \frac{3}{7}$ को अवरोही क्रम मे लिखें।

(a) $\frac{3}{7}, \frac{2}{3}, \frac{1}{6}, \frac{1}{5}$

~~(b) $\frac{2}{3}, \frac{3}{7}, \frac{1}{5}, \frac{1}{6}$~~

(c) $\frac{3}{7}, \frac{1}{6}, \frac{1}{5}, \frac{2}{3}$

(d) $\frac{1}{6}, \frac{1}{5}, \frac{3}{7}, \frac{2}{3}$

$1 < \frac{2}{3} < \frac{1}{6} < \frac{1}{5} < \frac{3}{7}$

40 4 5 15 $\frac{1}{20}$

$\frac{2}{3}, \frac{3}{7}, \frac{1}{5}, \frac{1}{6}$

RRB NTPC 15.03.2021 (Shift-II)

8. Find the correct descending order of the following ratios.

निम्नलिखित अनुपातों का सही अवरोही क्रम ज्ञात करें।

$$\frac{17}{30}, \frac{7}{15}, \frac{27}{50}, \frac{11}{20}$$

(a) $\frac{17}{30} > \frac{27}{50} > \frac{11}{20} > \frac{7}{15}$

(b) $\frac{17}{30} > \frac{11}{20} > \frac{27}{50} > \frac{7}{15}$

(c) $\frac{7}{15} > \frac{11}{20} > \frac{27}{50} > \frac{17}{30}$

(d) $\frac{11}{20} > \frac{17}{30} > \frac{27}{50} > \frac{7}{15}$

$\frac{17}{30}, \frac{11}{20}, \frac{27}{50}, \frac{7}{15}$

9. Which of the following statements is/are true?

निम्नलिखित में से कौन सा/से कथन सत्य है?

~~I.~~ $11\frac{1}{2} + 17\frac{3}{4} - 5\frac{1}{5} - 2\frac{1}{10} = \frac{439}{20}$

~~II.~~ $\frac{9}{1078} > \frac{11}{1127} > \frac{12}{1219}$

~~III.~~ $\frac{149}{151} > \frac{153}{155} > \frac{157}{159}$

(a) केवल I

(b) केवल II

(c) केवल III

(d) कोई सत्य नहीं है

$\frac{9 \times 44}{1078 \times 44}$

$\frac{11 \times 36}{1127 \times 36}$

$\frac{12 \times 33}{1219 \times 33}$

$\frac{9}{1078} < \frac{11}{1127}$

SSC CPO SI 9/11/2022 (Shift

$\frac{10143}{6}$

$\frac{11858}{2}$

$\frac{1}{2}$



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TYPE-II

10. Decimal expansion of $\frac{109}{100}$ is....

$\frac{109}{100}$ का दशमलव विस्तार.... है।

~~a. $\underline{100} + 9 + \frac{0}{100}$~~

~~b. $1 + \frac{9}{10}$~~

~~c. $1 + \frac{0}{10} + \frac{9}{100}$~~

~~d. $10 + \frac{9}{100}$~~

$1 + \frac{9}{100}$

RRB NTPC 07.01.2021 (Shift-II)

11. Which of the following will have a value in silent decimal?

निम्न में से किसका मान शांत दशमलव में प्राप्त होगा?

~~(a)~~ $\frac{3}{36} = \frac{1}{12} = 0.083333\ldots$

~~(b)~~ $\frac{12}{36} = \frac{1}{3} = 0.3333\ldots$

~~(c)~~ $\frac{9}{36} = \frac{1}{4} = \underline{0.25}$

~~(d)~~ $\frac{6}{36} = \frac{1}{6} = 0.16666\ldots$

RRB ALP & Tec. (10-08-18 Shift-III)

12. Which of the following numbers is a silent decimal
निम्नलिखित में से कौन-सी संख्या शांत दशमलव है?

$\frac{15}{600}$, $\frac{29}{343}$, $\frac{7}{2^2 \times 7^2}$, $\frac{77}{210}$

(a) $\frac{7}{2^2 \times 7^2}$

(b) $\frac{29}{343}$

(c) $\frac{15}{600}$

(d) $\frac{77}{210}$

RRB NTPC 07.01.2021 (Shift-II)

$\frac{1}{40}$
 $= 0.025$

13. Which of these fractions will not result in a recurring decimal?

इनमें से किस भिन्न का परिणाम आवर्ती दशमलव (Recurring decimal) नहीं होगा?

~~(a) $\frac{10}{30}$~~ $\frac{1}{3}$

~~(b) $\frac{12}{30}$~~ $\frac{2}{5} = 0.4$

~~(c) $\frac{14}{30}$~~

~~(d) $\frac{8}{30}$~~

RRB Paramedical Exam - 21/07/2018 (Shift-III)

14. Which of the following fractions is repeating decimal will give?

निम्नलिखित में से कौन-सी भिन्न पुनरावर्ती दशमलव देगी?

~~(a)~~ $\frac{27}{60}$

$\frac{4.5}{10} = 0.45$

~~(b)~~ $\frac{27}{72}$

$\frac{3}{8} = 0.375$

~~(c)~~ $\frac{27}{48}$

$\frac{9}{16} = 0.5625$

~~(d)~~ $\frac{27}{84}$

$\frac{9}{28} = 0.3213 \dots$



H.W. 15. Which of the following will give a terminating decimal?

निम्नलिखित में से कौन सा अवसान दशमलव देगा?

(a) $\frac{12}{72}$

(b) $\frac{6}{72}$

(c) $\frac{9}{72}$

(d) $\frac{3}{72}$