



# SSC CGL & CHSL 2024



DAY-2

आरंभ बैच

MATHS

# 50 TOP SIMPLIFICATION

LIVE 06:00 PM

PART-1

2024 के सपने होंगे पूरे





1

$$1260 \div 15 \div 7 = ?$$

- 1) 12
- 2) 58
- 3) 122
- 4) 588



2 If  $45 - [28 - \{37 - (15 - *)\}] = 58$ , then \* is equal to :

(1) 20

(2) 25

(3) 19

(4) 18



3

Which of the following will come in place of both the question marks in the following equation?

$$\frac{128 \div 16 \times ? - 7 \times 2}{7^2 - 8 \times 6 + ?^2} = 1$$

निम्नलिखित में से कौन सा निम्नलिखित समीकरण में प्रश्न चिह्न दोनों के स्थान पर आएगा?

$$\frac{128 \div 16 \times ? - 7 \times 2}{7^2 - 8 \times 6 + ?^2} = 1$$

(1) 3

(2) 14

(3) 16

(4) 17



Simplify:  $18 - [5 - \{6 + 2(7 - 8 - 5)\}]$ .

- (1) 13
- (2) 15
- (3) 27
- (4) 32



5

When simplified, the product  $\left(1 - \frac{1}{2}\right) \left(1 - \frac{1}{3}\right) \left(1 - \frac{1}{4}\right) \dots \left(1 - \frac{1}{n}\right)$  gives.

जब सरलीकृत किया जाता है, तो  $\left(1 - \frac{1}{2}\right) \left(1 - \frac{1}{3}\right) \left(1 - \frac{1}{4}\right) \dots \left(1 - \frac{1}{n}\right)$

- (1)  $\frac{1}{n}$
- (2)  $\frac{2}{n}$
- (3)  $\frac{2(n-1)}{n}$
- (4)  $\frac{2}{n(n+1)}$



6

$$\frac{3}{4} \left(1 + \frac{1}{3}\right) \left(1 + \frac{2}{3}\right) \left(1 - \frac{2}{5}\right) \left(1 + \frac{6}{7}\right) \left(1 - \frac{12}{13}\right) = ?$$

(1)  $\frac{1}{5}$

(2)  $\frac{1}{6}$

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

(4) NOT



The value of  $999\frac{995}{999} \times 999$  is:

मान ज्ञात करे

- (1) 990809
- (2) 998996
- (3) 998999
- (4) 999824





8

$$\left( 999 \frac{1}{7} + 999 \frac{2}{7} + 999 \frac{3}{7} + 999 \frac{4}{7} + 999 \frac{5}{7} + 999 \frac{6}{7} \right) \text{ is}$$

simplified to:

(1) 2997

(2) 5979

(3) 5994

(4) 5997



9 The value of  $1 \div [1 + 1 \div \{1 + 1 \div (1 + 1 \div 2)\}]$  is :

- (1)  $\frac{1}{2}$
- (2)  $\frac{5}{8}$
- (3) 1
- (4) 2



10

$1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{7} + \frac{1}{14} + \frac{1}{28}$  is equal to :

$1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{7} + \frac{1}{14} + \frac{1}{28}$  के बराबर है

(1) 2

(2) 2.5

(3) 3

(4) 3.5



11

$$1 + \frac{3}{4} + 5\frac{1}{3} + 3\frac{2}{5} = ?$$

(1)  $10\frac{29}{60}$

(2)  $9\frac{29}{60}$

(3)  $9\frac{2}{5}$

(4)  $10\frac{39}{60}$



$$12 \quad 5 - \left[ \frac{3}{4} + \left\{ 2\frac{1}{2} - \left( 0.5 + \frac{1}{6} - \frac{1}{7} \right) \right\} \right]$$

(1)  $1\frac{19}{84}$

(2)  $2\frac{61}{84}$

(3)  $2\frac{23}{84}$

(4)  $2\frac{47}{84}$



13

$$\frac{1}{2 + \frac{1}{2 + \frac{1}{2 - \frac{1}{2}}}}$$

- (1)  $\frac{3}{8}$
- (2)  $\frac{19}{8}$
- (3)  $\frac{8}{3}$
- (4)  $\frac{8}{19}$



14  $\frac{3}{5}$  of  $\frac{4}{7}$  of  $\frac{5}{9}$  of  $\frac{21}{24}$  of 504 = ?

(1) 63

(2) 69

(3) 96

(4) 84



15  $\frac{3}{8}$  of  $168 \times 15 \div 5 + ? = 549 \div 9 + 235$

(1) 107

(2) 174

(3) 1

(4) 296





16

Find the value of \* in the following :

$$1\frac{2}{3} \div \frac{2}{7} \times \frac{*}{7} = 1\frac{1}{4} \times \frac{2}{3} \div \frac{1}{6}$$

(1) 0.006

(2)  $\frac{1}{6}$

(3) 0.6

(4) 6



17  $9 - 1\frac{2}{9}$  of  $3\frac{3}{11} \div 5\frac{1}{7}$  of  $\frac{7}{9} = ?$

- (1)  $\frac{7}{6}$
- (2) 9
- (3) 1
- (4) 8



18

Simplify :  $\frac{\frac{1}{3} + \frac{3}{4} \left( \frac{2}{5} - \frac{1}{3} \right)}{1\frac{2}{3} \text{ of } \frac{3}{4} - \frac{1}{4} \text{ of } \frac{4}{5}}$

- (1)  $\frac{1}{63}$
- (2)  $\frac{23}{40}$
- (3)  $\frac{23}{55}$
- (4)  $\frac{23}{63}$



19

$$\frac{\frac{1}{2} \div \frac{1}{2} \text{ of } \frac{1}{2}}{\frac{1}{2} + \frac{1}{2} \text{ of } \frac{1}{2}}$$

(1) 1

(2)  $1\frac{1}{3}$ (3)  $2\frac{2}{3}$ 

(4) 3



20

If  $\frac{a}{b} = \frac{4}{3}$ , then the value of  $\frac{6a+4b}{6a-5b}$  is :

यदि  $\frac{a}{b} = \frac{4}{3}$ , तो  $\frac{6a+4b}{6a-5b}$  का मान है:

(1) 4

(2) 1

(3)  $1\frac{1}{7}$

(4) 2



21

If  $\frac{a}{b} = \frac{4}{5}$ , and  $\frac{b}{c} = \frac{15}{16}$ , then  $\frac{c^2 - a^2}{c^2 + a^2}$  is :

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

(2)  $\frac{7}{25}$

(3)  $\frac{3}{4}$

(4) None of these



22

If  $2 = x + \frac{1}{1 + \frac{1}{3 + \frac{1}{4}}}$ , then the value of x is:

यदि  $2 = x + \frac{1}{1 + \frac{1}{3 + \frac{1}{4}}}$ , तो x का मान है:

(1) 5

(2)  $\frac{13}{17}$

(3)  $\frac{18}{17}$

(4)  $\frac{21}{17}$



23

$$\frac{3}{1^2 \cdot 2^2} + \frac{5}{2^2 \cdot 3^2} + \frac{7}{3^2 \cdot 4^2} + \frac{9}{4^2 \cdot 5^2} + \frac{11}{5^2 \cdot 6^2} + \frac{13}{6^2 \cdot 7^2} + \dots + \frac{19}{9^2 \cdot 10^2}$$

is :

- (1)  $\frac{1}{100}$
- (2)  $\frac{99}{100}$
- (3) 1
- (4)  $\frac{101}{100}$