



SELECTION BATCH

CALCULATION & SIMPLIFICATION SHEET - 1

Gagan Pratap Sir



RRB Group D-2022

- [A] 151 [B] 134
[C] 186 [D] 143

10. a, b and c are three single digit numbers such that $0.\overline{abcabcabc} \dots = \frac{26}{37}$ Find the value of $a + b + c$?
 a, b और c तीन एकल अंक वाली संख्याएं हैं जैसे कि $0.\overline{abcabcabc} \dots = \frac{26}{37}$ $a + b + c$ का मान ज्ञात कीजिये?

- [A] 9 [B] 11
[C] 8 [D] 7

11. M and N are such integers that $0 \leq N \leq 9$ and $\frac{M}{810} = 0.\overline{9N5}$ then the value of $M + N$ is equal to ?

M और N ऐसे पूर्णांक हैं जो $0 \leq N \leq 9$ और $\frac{M}{810} = 0.\overline{9N5}$ हैं तो $M + N$ का मान बराबर है?

- [A] 752 [B] 789
[C] 853 [D] 527

12. If $N = 0.369369369369 \dots$ and $M = 0.531531531531 \dots$ then what is the value of $\frac{1}{N} + \frac{1}{M}$?

- [A] $\frac{11100}{2419}$ [B] $\frac{111}{100}$
[C] $\frac{1897}{3162}$ [D] $\frac{2419}{11100}$

13. What is the value of $8.\overline{74} + 6.\overline{47}$?

- [A] $15\frac{2}{9}$ [B] $14\frac{7}{9}$
[C] $16\frac{1}{9}$ [D] $15\frac{1}{3}$

14. Express the following into vulgar fraction:

निम्नलिखित को अशुद्ध भिन्न में व्यक्त करें:

$$0.\overline{641} + 0.\overline{23}$$

(RRB RPF SI 2024)

- [A] $\frac{173}{198}$ [B] $\frac{173}{999}$
[C] $\frac{173}{199}$ [D] $\frac{173}{99}$

15. If $A = 0.\overline{312}$, $B = 0.\overline{415}$ & $C = 0.\overline{309}$, then what is the value of $A + B + C$?

यदि $A = 0.\overline{312}$, $B = 0.\overline{415}$ & $C = 0.\overline{309}$, तो $A+B+C$ का मान क्या है?

- [A] $\frac{1097}{1100}$ [B] $\frac{1211}{1100}$
[C] $\frac{1043}{1100}$ [D] $\frac{1141}{1100}$

16. Find the value of $2.\overline{38} \div 0.\overline{54}$.

$2.\overline{38} \div 0.\overline{54}$ का मान ज्ञात कीजिए:

(RRB JE 2024)

- [A] $4\frac{19}{49}$ [B] $3\frac{17}{21}$
[C] $5\frac{26}{51}$ [D] $6\frac{29}{57}$

17. Let $x = 1.\overline{05} \div \overline{95} \times 0.\overline{409}$ & $y = (0.\overline{75} \div 0.\overline{226}) \times (5.\overline{09} \div 1.\overline{7})$, then the value of xy is?

मान लीजिए $x = 1.\overline{05} \div \overline{95} \times 0.\overline{409}$ & $y = (0.\overline{75} \div 0.\overline{226}) \times (5.\overline{09} \div 1.\overline{7})$, तो xy का मान है?

(ICAR Technician 2022)

- [A] 4.5 [B] 5.4



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- [C] 0.45 [D] 0.54
18. **Simplify:**
 $8.5\overline{46} + 5.9\overline{27} = ?$
19. **Simplify:**
 $2.8\overline{56} + 3.\overline{74} + 5.85\overline{76} = ?$
20. **What is $3.\overline{76} - 1.4\overline{576}$ equal to?**
[A] $2.3\overline{100191}$ [B] $2.3\overline{101091}$
[C] $2.3\overline{110091}$ [D] $2.3\overline{110901}$
21. **The value of $22.\overline{4} + 11.5\overline{67} - 33.5\overline{9}$ is:**
 $22.\overline{4} + 11.5\overline{67} - 33.5\overline{9}$ का मान है:
[A] $0.\overline{32}$ [B] $0.4\overline{12}$
[C] $0.3\overline{4}$ [D] $0.4\overline{12}$
22. **The value of $0.4\overline{7} + 0.5\overline{03} - 0.3\overline{9} \times 0.8$ is:**
 $0.4\overline{7} + 0.5\overline{03} - 0.3\overline{9} \times 0.8$ का मान क्या है।
[A] $0.6\overline{15}$ [B] $0.6\overline{15}$
[D] $0.6\overline{25}$ [D] $0.6\overline{25}$
23. **How many value of y are possible if $.x\overline{y\overline{x}} + 0.z\overline{y\overline{x}} = \frac{164}{99}$?**
y के कितने मान संभव हैं यदि $0.x\overline{y\overline{x}} + 0.z\overline{y\overline{x}} = \frac{164}{99}$?
[A] 2 [B] 3
[C] 4 [D] 5
24. **Which of the following options is not a square number?**
निम्नलिखित में से कौन सा विकल्प एक वर्ग संख्या नहीं है?
(UP Constable 2018)
[A] 5625 [B] 7225
[C] 3625 [D] 9025
25. **Find the square of these numbers?**
इन संख्याओं का वर्ग जात कीजिये?
a) 89 b) 114
c) 163 d) 197
e) 291 f) 374
g) 413 h) 837
i) 926 j) 1116
26. **Evaluate 147^2 ?**
 147^2 का मूल्यांकन करें?
(RRB RPF SI 2024)
[A] 21629 [B] 21639
[C] 21669 [D] 21609
27. **The value of 1801×1801 is:**
 1801×1801 का मान है।



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- [A] 3423601 [B] 3243601
[C] 2343601 [D] 3243106

28. Let x be the least number which when subtracted from 10424 gives a perfect square number. What is the least number by which x should be multiplied to get a perfect square?

माना x बह छोटी से छोटी संख्या है, जिसे 10424 में से घटाने पर एक पूर्ण वर्ग संख्या प्राप्त होती है। बह छोटी से छोटी संख्या जात करें, जिसे x से गुणा करते पर पूर्ण वर्ग संख्या प्राप्त हो।

- [A] 3 [B] 6
[C] 5 [D] 2

29. A 4-digit number of the form $aabb$ is a perfect square. What is the value of $a - b$?

4-अंकीय संख्या $aabb$ एक पूर्ण वर्ग है। $a - b$ का मान क्या है?

- [A] 3 [B] 2
[C] 4 [D] 1

30. If a 5-digit number in the form $xyyxx$ is a perfect square then find value of $x+y+x*y$?

यदि $xyyxx$ रूप में 5 अंकों की संख्या एक पूर्ण वर्ग है। तो $x + y + x * y$ का मान जात कीजिए?

- [A] 49 [B] 51
[C] 48 [D] 50

31. Find?

जात कीजिये?

- [A] $\sqrt{5329}$ [B] $\sqrt{34596}$
[C] $\sqrt{58081}$ [D] $\sqrt{205209}$
[E] $\sqrt{719104}$

32. What is the square root of 735.4944?

735.4944 का वर्गमूल क्या है?

- [A] 27.12 [B] 32.12
[C] 37.14 [D] 29.14

33. Find the square root of 645.8 correct to two decimal places.

645.8 का वर्गमूल दो दशमलव स्थानों तक जात कीजिए।

(CISF HCM 2023)

- [A] 26.08 [B] 25.84
[C] 25.41 [D] 26.40

34. The square root of which of the following is a rational number?

निम्नलिखित में से किसका वर्गमूल एक परिमेय संख्या है?

- [A] 6250.49 [B] 1250.49
[C] 1354.24 [D] 5768.28

35. The square root of which of the following is a rational number?

निम्नलिखित में से किसका वर्गमूल एक परिमेय संख्या है?

- [A] 304704 [B] 524.176



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- [C] 344.96 [D] 19.4482
36. **If square of a number contains 17 digits, then how many digits will it have?**
यदि किसी संख्या के वर्ग में 17 अंक हैं, तो उसके कितने अंक होंगे?
[A] 7 [B] 8
[C] 9 [D] 10
37. **If a perfect square of a number contains 22 digits, then how many digits will it have?**
यदि किसी संख्या के वर्ग में 22 अंक हैं, तो उसके कितने अंक होंगे?
[A] 12 [B] 11
[C] 9 [D] 10
38. **How many natural numbers are there between $\sqrt{261}$ and $\sqrt{45109}$?**
 $\sqrt{261}$ और $\sqrt{45109}$ के बीच कितनी प्राकृतिक संख्याएँ हैं ?
[A] 144 [B] 168
[C] 196 [D] 195
39. **A General of an Army wants to create a formation of square from 36562 army men. After arrangement, he found some army men remained unused.**
किसी सेना के जनरल 36562 सैनिकों से एक वर्गाकार अव्यूह की रचना करने के बाद कुछ सैनिक बच गये। बचे हुए सैनिकों की संख्या ज्ञात क्या थी?
[A] 36 [B] 65
[B] 81 [D] 97
40. **Find cube root?**
[A] $\sqrt[3]{-17576}$ [B] $\sqrt[3]{493039}$
[C] $\sqrt[3]{1771561}$ [D] $\sqrt[3]{681472}$
[E] $\sqrt[3]{1225043}$ [F] $\sqrt[3]{9663597}$
41. **If $(584)^2 = 341056$, then the value of square root of 34.1056 is?**
यदि $(584)^2 = 341056$, तो 34.1056 के वर्गमूल का मान क्या है?
(RRB ALP 2024)
[A] 0.0584 [B] 0.000584
[C] 0.584 [D] 5.84
42. **Find the value of 172.2896×10^{-5} .**
 172.2896×10^{-5} का मान ज्ञात कीजिए।
[A] 0.001722896 [B] 0.01722896
[C] 1722896 [D] 0.1722896
43. **If $\frac{1}{4.263} = 0.2346$, find the value of $\frac{1}{0.0004263}$.**
यदि $\frac{1}{4.263} = 0.2346$ है, तो $\frac{1}{0.0004263}$ का मान ज्ञात कीजिए।
[A] 4.263 [B] 2.346
[C] 2346 [D] 4263
44. $\sqrt{\frac{(0.03)^2 + (0.21)^2 + (0.065)^2}{(0.003)^2 + (0.021)^2 + (0.0065)^2}} = ?$



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- [A] 0.1 [B] 10
[C] 10^2 [D] 10^3

45. Find the value of the following

$$\frac{(0.01)^3 + (0.22)^3 + (0.333)^3 + (0.4444)^3}{(0.001)^3 + (0.022)^3 + (0.0333)^3 + (0.04444)^3}$$

RRB NTPC 2021

- [A] 500 [B] 750
[C] 1250 [D] 1000

46. Evaluate: $(0.05^3 + 0.01^3) \div (0.25^3 + 0.05^3)$

मूल्यांकन करें: $(0.05^3 + 0.01^3) \div (0.25^3 + 0.05^3)$

- [A] 0.008 [B] 0.004
[C] 0.006 [D] 0.002

47. Find the value of $(625)^{0.07} \times (625)^{0.18}$.

$(625)^{0.07} \times (625)^{0.18}$ का मान ज्ञात कीजिए।

- [A] 25 [B] 625
[C] 5 [D] 125

48. Evaluate: $\sqrt[3]{-125} + \sqrt[3]{0.008} + \sqrt[3]{0.343} - \sqrt[3]{-0.009261}$

मूल्यांकन कीजिये : $\sqrt[3]{-125} + \sqrt[3]{0.008} + \sqrt[3]{0.343} + \sqrt[3]{-0.009261}$

- [A] -4.31 [B] -5.51
[C] 25.1 [D] 0.21

49. If $\sqrt{1521} = 39$, then find the value of $\sqrt{15.21} + \sqrt{0.1521} + \sqrt{0.001521} + \sqrt{0.00001521} + \sqrt{0.0000001521}$ up to two places of decimals?

यदि $\sqrt{1521} = 39$, तो $\sqrt{15.21} + \sqrt{0.1521} + \sqrt{0.001521} + \sqrt{0.00001521} + \sqrt{0.0000001521}$ का मान दशमलव के दो स्थानों तक ज्ञात कीजिए?

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- [A] 4.11 [B] 4.33
[C] 4.77 [D] 4.55

50. Given that $\sqrt{19} = 4.35$ & $\sqrt{190} = 13.78$, then the value of $\sqrt{1.9} + \sqrt{1900} + \sqrt{0.019}$ will be equal to?

दिया गया है कि $\sqrt{19} = 4.35$ & $\sqrt{190} = 13.78$, तो $\sqrt{1.9} + \sqrt{1900} + \sqrt{0.019}$ का मान किसके बराबर होगा?

- [A] 43.0142 [B] 45.0158
[C] 46.0186 [D] 48.0542

51. If $47.2506 = 4A + \frac{7}{B} + 2C + \frac{5}{D} + 6E$ then $5A + 3B + 6C + D + 3E = ?$

- (A) 53.6003 (B) 53.6012
(C) 153.6003 (D) 213.003

52. How many digits will be there after the decimal point in the product of 0.325 and 1.0302?

0.325 और 1.0302 के गुणनफल में दशमलव बिंदु के बाद कितने अंक होंगे?

(DP CONSTABLE 2023)



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- [A] 8 [B] 7
[C] 5 [D] 6

53. When 63558 is divided by 321, the quotient is 198. What will be the quotient when 6.3558 is divided by 0.0198?

जब 63558 को 321 से विभाजित किया जाता है, तो भागफल 198 होता है। जब 6.3558 को 0.0198 से विभाजित किया जाता है, तो भागफल क्या होगा?

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- [A] 3.21 [B] 321
[C] 32.1 [D] 3210

54. If $16.5 \times 35.5 = 585.75$, then find the value of $58.575 \div 0.165$.

यदि $16.5 \times 35.5 = 585.75$ है, तो $58.575 \div 0.165$ का मान ज्ञात कीजिए।

UP POLICE ASSISTANT OPERATOR 2024

- [A] 355 [B] 35.5
[C] 3.55 [D] 0.355

55. $331 \times 226 = 74806$. What will be the value of 3.31×0.226 ?

$331 \times 226 = 74806$ होता है। 3.31×0.226 का मान कितना होगा?

RRB NTPC 2021

- [A] 0.74806 [B] 7.4806
[C] 0.074806 [D] 74.806

56. Simplify:

$$1 + 2 + 3 + \dots + 999 + 1000 + 999 + \dots + 2 + 1$$

- [A] 999000 [B] 1000000
[C] 999999 [D] 990000

57. Simplify:

$$\sqrt{1 + 2 + 3 + \dots + 78 + 79 + 78 + \dots + 2 + 1} = ?$$

- [A] 78 [B] 6084
[C] 79 [D] 6241

58. $\sqrt{1 + 2 + 3 + \dots + (2N - 2) + (2N - 1) + 2N + (2N - 1) + (2N - 2) + \dots + 2 + 1} = 90$

Find the value of N^2 .

- [A] 1600 [B] 2025
[C] 2500 [D] 8100

59. $\sqrt{(11111 - \dots - 100\text{times}) - (22222 - \dots - 50\text{times})} = ?$

- [A] (11111 - \dots - 100times)
[B] (11111 - \dots - 50times)
[C] (33333 - \dots - 100times)
[D] (33333 - \dots - 50times)

60. If $x = 111 \dots 1$ (20 digits), $y = 333 \dots 3$ (10 digits) and $z = 222 \dots 2$ (10 digits), then what is $\frac{x-y^2}{z}$ equal to?



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- [A] $\frac{1}{2}$ [B] 1
[C] 2 [D] 3

61. $(6666666 \dots 100 \text{ times})^2 + (888888 \dots 100 \text{ times}) = ?$

- [A] (444.....200 times)
[B] (2222.....200 times)
[C] (44444.....100 times)
[D] (55555.....100 times)

62. If $N = 1 + 11 + 111 + 1111 + \dots + 111111111$, then what is the sum of the digit's of N?
यदि $N = 1 + 11 + 111 + 1111 + \dots + 111111111$ हो, तो N के अंकों का योग क्या है?

- [A] 45 [B] 18
[C] 36 [D] 5

63. $\sqrt{121} + \sqrt{12321} + \dots + \sqrt{1234567654321} = ?$

- [A] 1234567 [B] 1234566
[C] 1234565 [D] None

64. $\sqrt{121} + \sqrt{12321} + \dots + \sqrt{N} = 123456788$. Find the value of N.

- [A] 123456787654321 [B] 1234567654321
[C] 12345654321 [D] None

65. The value of 596×604 is:

596×604 का मान ज्ञात कीजिए।

- [A] 364199 [B] 366958
[C] 356822 [D] 359984

66. Find the value of $98.2^2 - 88.2^2$.

$98.2^2 - 88.2^2$ का मान ज्ञात कीजिए।

- [A] 186.4 [B] 1864
[C] 1846 [D] 100

67. Simplify the expression $((82 \times 82) - (18 \times 18))^{0.5}$

व्यंजक $((82 \times 82) - (18 \times 18))^{0.5}$ को हल कीजिए।

- [A] 100 [B] 20
[C] 40 [D] 80

68. The value of $\frac{18.43 \times 18.43 - 6.57 \times 6.57}{11.86}$ is:

$\frac{18.43 \times 18.43 - 6.57 \times 6.57}{11.86}$ का मान है:

- [A] 23.62 [B] 25
[C] 26 [D] 24.12

69. 0. If $A = \frac{58^2 - 25^2}{46^2 - 37^2}$, $B = \frac{26^2 - 15^2}{56^2 - 15^2}$, then the value of $\frac{1}{B} - \frac{20}{A}$ is:

यदि $A = \frac{58^2 - 25^2}{46^2 - 37^2}$, $B = \frac{26^2 - 15^2}{56^2 - 15^2}$ है, तो $\frac{1}{B} - \frac{20}{A}$ का मान क्या होगा?

(MAINS 2023)

- [A] 2 [B] 1



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- [B] 0 [D] -1
70. What is the value of $(2^2 + 1)(2^4 + 1)(2^8 + 1)(2^{16} + 1) \dots (2^{128} + 1)$?
 $(2^2 + 1)(2^4 + 1)(2^8 + 1)(2^{16} + 1) \dots (2^{128} + 1)$ का मान क्या है?
- [A] $\frac{2^{256}-1}{2}$ [B] $\frac{2^{256}-1}{3}$
 [C] $2^{256} - 1$ [D] $\frac{2^{256}+1}{3}$
71. The value of $\frac{0.0203 \times 2.92}{0.7 \times 0.0365 \times 2.9} \div \frac{(12.12)^2 - (8.12)^2}{(0.25)^2 + (0.25)(19.99)}$ is:
 $\frac{0.0203 \times 2.92}{0.7 \times 0.0365 \times 2.9} \div \frac{(12.12)^2 - (8.12)^2}{(0.25)^2 + (0.25)(19.99)}$ का माल ज्ञात कीजिए।
- [A] 0.05 [B] 0.5
 [C] 0.1 [D] 0.01
72. The value of $\frac{1}{4} + \frac{[(20.35)^2 - (8.35)^2] \times 0.0175}{(1.05)^2 + (1.05)(27.65)}$ is:
 $\frac{1}{4} + \frac{[(20.35)^2 - (8.35)^2] \times 0.0175}{(1.05)^2 + (1.05)(27.65)}$ का मान ज्ञात करें।
- [A] $\frac{3}{10}$ [B] $\frac{9}{20}$
 [C] $\frac{7}{20}$ [D] $\frac{3}{20}$
73. The value of $\frac{48.3 \times \{4.95^2 + 4.95 \times 13.25\}}{[(12.55)^2 - (5.65)^2] \times 19.8}$ is:
 $\frac{48.3 \times \{4.95^2 + 4.95 \times 13.25\}}{[(12.55)^2 - (5.65)^2] \times 19.8}$ का मान क्या है?
- (a) 17.5 (b) 0.175
 (c) 1.75 (d) 175
74. If $(x + 7957 \times 7965)$ is a perfect square, then find the value of x?
- [A] 1 [B] 16
 [C] 9 [D] 25
75. Find $\frac{\sqrt{4916 \times 4922 + 9}}{4918 \times 4920 + 1}$
76. If $A = 8289535 \times 8289545$, $B = 8289534 \times 8289546$, $C = 8289533 \times 8289547$ Find smallest of A, B and C?
 यदि $A = 8289535 \times 8289545$, $B = 8289534 \times 8289546$, $C = 8289533 \times 8289547$ तो A, B और C में से सबसे छोटा खोजें ?
- [A] A [B] B
 [C] C [D] all are same
77. The value of $(1018)^2 - 1019 \times 1017 + 1015 \times 1012 - 1016 \times 1011$ is:
 $(1018)^2 - 1019 \times 1017 + 1015 \times 1012 - 1016 \times 1011$ का मान ज्ञात करें।
- [A] 1 [B] 4
 [C] 3 [D] 5
78. The value of $\frac{(0.13)^2 + (0.21)^2}{(0.39)^2 + 81(0.07)^2} \div \frac{(2.4)^4 + 3 \times (11.52) + 9}{(2.4)^6 + 6(2.4)^4 + 3 \times (17.28)}$ lies between:
 $\frac{(0.13)^2 + (0.21)^2}{(0.39)^2 + 81(0.07)^2} \div \frac{(2.4)^4 + 3 \times (11.52) + 9}{(2.4)^6 + 6(2.4)^4 + 3 \times (17.28)}$ का मान किसके बीच स्थित है?
- [A] 0.4 and 0.5 [B] 0.7 and 0.8
 [C] 0.5 and 0.6 [D] 0.6 and 0.7



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$$(a + b)^2 = a^2 + b^2 + 2ab$$

$$(a - b)^2 = a^2 + b^2 - 2ab$$

79. Simplify the following expression.

निम्नलिखित व्यंजक को हल कीजिए।

$$(2.19)^2 + 2(2.19)(3.81) + (3.81)^2$$

[A] 216

[B] 12

[C] 36

[D] 6

80. Simplify the following expression/निम्नलिखित व्यंजक को हल कीजिए।

$$(0.14 \times 0.14) - (2 \times 0.14 \times 5.14) + (5.14 \times 5.14)$$

[A] 5.18

[B] 4

[C] 16

[D] 25

81. For what value of A, will the expression $(13.56 \times 13.56 + 13.56 \times A + 0.04 \times 0.04)$ be a perfect square?

A के किस मान के लिए व्यंजक $(13.56 \times 13.56 + 13.56 \times A + 0.04 \times 0.04)$ एक पूर्ण वर्ग होगा?

[A] 0.12

[B] 0.04

[C] 0.16

[D] 0.08

82. Simplify $(957 + 932)^2 - 4 \times 957 \times 932$.

$(957 + 932)^2 - 4 \times 957 \times 932$ को सरल करें।

[A] 576

[B] 676

[C] 529

[D] 625

83. Find $\sqrt{98235^2 + 98235 + 98236}$?

$\sqrt{98235^2 + 98235 + 98236}$ ज्ञात कीजिये?

[A] 98236

[B] 98328

[C] 98765

[D] 98237

84. $\sqrt{22223^2 - 88888} = ?$

[A] 22222

[B] 22220

[C] 22221

[D] 22223

$$\sqrt{a^2 + b^2 + 2ab} = a + b$$

$$(a - b)^2 = (b - a)^2 = a^2 + b^2 -$$

$$\sqrt{a^2 + b^2 - 2ab} \begin{cases} \rightarrow a - b (a > b) \\ \rightarrow b - a (b > a) \end{cases}$$

85. If $a = 0.4039$ then $\sqrt{4a^2 - 4a + 1} + 5a = ?$

(A) 2.2117

(B) 2.4039

(C) 2.8078

(D) 1.8273

$$(a + B)^2 + (a - b)^2 = 2(a^2 + b^2)$$

$$(a + B)^2 - (a - b)^2 = 4ab$$



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86. Find $3111^2 + 2889^2$?

$3111^2 + 2889^2$ ज्ञात कीजिये?

- [A] 18024642 [B] 18024643
 [C] 18062445 [D] None of these

87. Simplify:

$$\frac{(2018)^2}{(2017)^2 + (2019)^2 - 2} = ?$$

- [A] 1009 [B] $\frac{1}{2}$
 [C] $\frac{1}{3}$ [D] 23

88. Simplify: $\frac{(379+276)^2 + (379-276)^2}{379 \times 379 + 276 \times 276}$

निम्नलिखित को सरल कीजिए।

$$\frac{(379+276)^2 + (379-276)^2}{379 \times 379 + 276 \times 276}$$

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- [A] 2 [B] 655
 [C] 103 [D] 1

89. The value of $\frac{[(68.4)^2 + (31.6)^2]}{[(684+316)^2 + (684-316)^2]}$ is:

- [A] 0.05 [B] 0.005
 [C] 0.0005 [D] 0.5

90. Simplify the given expression

दिये गए व्यंजक का सरलीकरण करें।

$$\frac{(326+222)^2 - (326-222)^2}{(652 \times 37)}$$

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- [A] 16 [B] 4
 [C] 3 [D] 12

91. The value of $\frac{4.669 \times 4.669 - 9 \times (0.777)^2}{(4.669)^2 + (2.331)^2 + 14(0.667)(2.331)}$ is $(1 - k)$, where $k = ?$

$\frac{4.669 \times 4.669 - 9 \times (0.777)^2}{(4.669)^2 + (2.331)^2 + 14(0.667)(2.331)}$ का मान $(1-k)$ है, जिसमें $k = ?$

- [A] 0.467 [B] 0.768
 [C] 0.647 [D] 0.666

92. The value of $\frac{0.325 \times 0.325 + 0.175 \times 0.175 + 25 \times 0.00455}{5 \times 0.0065 \times 3.25 - 7 \times 0.175 \times 0.025} + \frac{0.5}{1.5}$ is:

$\frac{0.325 \times 0.325 + 0.175 \times 0.175 + 25 \times 0.00455}{5 \times 0.0065 \times 3.25 - 7 \times 0.175 \times 0.025} + \frac{0.5}{1.5}$ का मान ज्ञात करें।

- [A] 3 [B] 2
 [C] $\frac{7}{3}$ [D] $\frac{11}{3}$

$$(a + b + c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$$

$$(a + b - c)^2 = a^2 + b^2 + c^2 + 2ab - 2bc - 2ca$$

93. Simplify the following expression: / निम्नलिखित व्यंजक को सरल बनाएं:

$$0.01 + 0.68 \times 0.68 + 0.22 \times 0.22 + 0.044 + 0.136 + 0.44 \times 0.68$$

- [A] 0.69 [B] 1



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- [C] 0.9 [D] 0.8
94. Find the value of: $0.78^3 + 0.22^3 + 3(0.78)(0.22) + 1$.
 $0.78^3 + 0.22^3 + 3(0.78)(0.22) + 1$ का मान ज्ञात कीजिए।
 [A] 8 [B] 4
 [C] 1 [D] 2
95. Simplify the following expression.
 $32^3 - 3(32^2)(12) + 3(32)(12^2) - 12^3$
 [A] 8000 [B] 4000
 [C] 16000 [D] 800
96. If $p = (0.001) + 3(0.1)(0.99) + (0.3)(98.01) + (9.9)(98.01)$, then find the value of $\frac{p}{25}$.
 यदि $P = (0.001) + 3(0.1)(0.99) + (0.3)(98.01) + (9.9)(98.01)$ है, तो $\frac{p}{25}$ का मान ज्ञात कीजिए।
 [A] 400 [B] 540
 [C] 50 [D] 40
97. Find the value of p so that the expression $(15.97)^3 + 1.4373 \times p + (0.03)^3$ is a perfect cube.
 p का वह मान ज्ञात कीजिए जिससे व्यंजक $(15.97)^3 + 1.4373 \times p + (0.03)^3$ एक पूर्ण घन हो जाए।
 [A] 0.000027 [B] 4096
 [C] 16 [D] 47.91
98. Simplify the following expression $\frac{(8.25)^3 - 3 \times (8.25)^2 \times 0.25 + 24.75 \times (0.25)^2 - (0.25)^3}{4 \times 4 \times 4}$?
 निम्नलिखित अभिव्यक्ति को सरल बनाएं $\frac{(8.25)^3 - 3 \times (8.25)^2 \times 0.25 + 24.75 \times (0.25)^2 - (0.25)^3}{4 \times 4 \times 4}$?
[SSC SELECTION POST (PHASE XII) 2024]
 [A] 8 [B] 6
 [C] 4 [D] 2
99. The value of $\frac{\{18^3 + 36(18)^2 + 54(12)^2 + 12^3\}^{\frac{2}{3}}}{\sqrt[3]{3375} + \sqrt[3]{4096} + \sqrt[3]{2744}}$ is
 $\frac{\{18^3 + 36(18)^2 + 54(12)^2 + 12^3\}^{\frac{2}{3}}}{\sqrt[3]{3375} + \sqrt[3]{4096} + \sqrt[3]{2744}}$ का मान ज्ञात कीजिए।
(IB ACIO GRADE-2 2025)
 [A] 20 [B] 15
 [C] 31 [D] 28
100. Solve $\frac{(2.45)^3 + 7.35(1.55)^2 - 4.65(2.45) - (1.55)^3}{(2.45)^2 - 2 \times 2.45 \times 1.55 + (1.55)^2}$.
 [A] 0.8 [B] 0.9
 [C] 0.7 [D] 0.6
101. $\{(3.07)^3 - (0.07)^3 - 0.63 \times 3.07\} \div \{(1.98)^3 + (0.02)^3 + 1.98 \times 0.12\} = ?$
 [A] 3.6 [B] 2.25
 [C] 3.125 [D] 3.375
102. $\frac{(5.4)^2 + (4.4)^2 - 47.52}{(5.4)^3 - (4.4)^3 - 71.28} = ?$
 [A] 0.21 [B] 1
 [C] 12.60 [D] -1



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103. What is the value of $(.91)^3 + (.09)^3 / [(.91)^2 - .0819 + (.09)^2]$?
 $(.91)^3 + (.09)^3 / [(.91)^2 - .0819 + (.09)^2]$ का मान क्या है?

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- [A] 1 [B] 5
[C] 4 [D] 6

104. Simplify the following/निम्नलिखित को सरल कीजिए।

$$\frac{762 \times 762 \times 762 + 316 \times 316 \times 316}{762 \times 762 - 762 \times 316 + 316 \times 316}$$

(SSC CGL 2022)

- [A] 1064 [B] 1056
[C] 1042 [D] 1078

105. The value of $\frac{427 \times 427 \times 427 + 325 \times 325 \times 325}{42.7 \times 42.7 + 32.5 \times 32.5 - 42.7 \times 32.5}$ is:
 $\frac{427 \times 427 \times 427 + 325 \times 325 \times 325}{42.7 \times 42.7 + 32.5 \times 32.5 - 42.7 \times 32.5}$ का मान ज्ञात करो?

- [A] 75.2 [B] 752
[C] 75200 [D] 7520

106. $\frac{63.5 \times 63.5 \times 63.5 + 36.5 \times 36.5 \times 36.5}{6.35 \times 6.35 + 3.65 \times 3.65 - 6.35 \times 3.65}$ is equal to:

- [A] 10,000 [B] 1,00,000
[C] 100 [D] 1,000

107. The value of $\frac{(0.013)^3 + (0.007)(0.000049)}{(0.007)^2 + 0.013(0.013 - 0.007)}$ is
 $\frac{(0.013)^3 + (0.007)(0.000049)}{(0.007)^2 + 0.013(0.013 - 0.007)}$ का मान ज्ञात कीजिए।

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- [A] 0.06 [B] 0.02
[C] 0.07 [D] 0.04

108. Evaluate the following:

निम्नलिखित का मूल्यांकन करें:

$$\frac{((12.5)^3 + (7.5)^3)}{(12.5)^2 + (7.5)^2 - 12.5 \times 7.5}$$

- [A] 20 [B] 25
[C] 30 [D] 15

109. The value of $\frac{27 \times (0.25)^3 + 125(0.05)^3}{(0.75)^2 - 0.25 \times 0.5}$ is:

$$\frac{27 \times (0.25)^3 + 125(0.05)^3}{(0.75)^2 - 0.25 \times 0.5}$$
 का मान ज्ञात कीजिए।

- [A] 1 [B] 0.25
[C] 0.75 [D] 0.5

110. $\frac{8(3.75)^3 + 1}{(7.5)^2 - 6.5} = ?$

- [A] 2.75 [B] $\frac{9}{5}$
[C] 4.75 [D] 8.5

111. The square root of $\frac{(0.75)^3}{1-0.75} + [0.75 + (0.75)^2 + 1]$



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- [A] 1 [B] 2
[C] 3 [D] 4

112. The value of $\frac{146 \times 146 \times 146 - 143 \times 143 \times 143}{146 \times 146 + 143 \times 143 + 146 \times 143}$ is:
का मान क्या होगा।

(SSC CGL 2022)

- [A] 0 [B] 3
[C] 289 [D] 1

113. Simplify $\frac{6.1 \times 61 \times 6.1 - 1}{6.1 \times 6.1 + 6.1 + 1}$?
सरल बनाएं $\frac{6.1 \times 61 \times 6.1 - 1}{6.1 \times 6.1 + 6.1 + 1}$?

(DP CONSTABLE 2023)

- [A] 4.1 [B] 3.1
[C] 6.1 [D] 5.1

114. Simplify the given expression./दिए गए व्यंजक को सरल कीजिए।

$$\frac{(4.2)^3 - 0.008}{(4.2)^2 + 0.84 + 0.04}$$

(SSC CHSL 2023 PRE)

- [A] 4 [B] 2
[C] -2 [D] -4

115. Simplify the given expression.

निम्नलिखित व्यंजक का मान क्या होगा?

$$\frac{(3.254 \times 3.254 \times 3.254) - (0.746 \times 0.746 \times 0.746)}{(3.254 \times 3.254) + (0.746 \times 0.746) + (3.254 \times 0.746)}$$

(SSC CPO 2023)

- [A] 2.508 [B] 4.508
[C] 2.146 [D] 3.156

116. The value of $\frac{(157 \times 157) + (157 \times 133) + (133 \times 133)}{(157 \times 157 \times 157) - (133 \times 133 \times 133)}$ is:

$\frac{(157 \times 157) + (157 \times 133) + (133 \times 133)}{(157 \times 157 \times 157) - (133 \times 133 \times 133)}$ का मान क्या होगा?

(SSC CPO 2023)

- [A] 24 [B] 1/290
[C] 290 [D] 1/24

117. If $\frac{(17)^3 + (7)^3}{(17^2 + 7^2 - k)} = 24$, then what is the value of k?

यदि $\frac{(17)^3 + (7)^3}{(17^2 + 7^2 - k)} = 24$ है, तो k का मान क्या है?

- [A] 119 [B] 128
[C] 24 [D] 109

118. Simplify the given expression./दिए गए व्यंजक को सरल कीजिए।

$$\frac{4913 + 343}{289 + 49 - 119}$$

(SSC CHSL 2023 PRE)

- [A] 20 [B] 24
[C] 22 [D] 26



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119. Find the value of the following expression:

निम्नलिखित व्यंजक का मान ज्ञात कीजिए:

$$\frac{(7.03)^3 - 0.027}{(7.03)^2 + 2.109 + (0.3)^2}$$

- [A] 7.06 [B] 7
[C] 7.33 [D] 6.73

120. The value of $\frac{5.169 \times 5.169 \times 5.169 - 64 \times (0.888)^3}{(5.169)^2 + (3.552)^2 + 4(0.888)(5.169)}$?

$\frac{5.169 \times 5.169 \times 5.169 - 64 \times (0.888)^3}{(5.169)^2 + (3.552)^2 + 4(0.888)(5.169)}$ का मान है?

- [A] 1.323 [B] 1.617
[C] 1.625 [D] 1.317

121. The value of $\frac{(253)^3 + (247)^3}{25.3 \times 25.3 - 624.91 + 24.7 \times 24.7}$ is 50×10^k , where the value of k is:

$\frac{(253)^3 + (247)^3}{25.3 \times 25.3 - 624.91 + 24.7 \times 24.7}$ का मान 50×10^k है, जहाँ k का मान है:

- [A] 4 [B] 3
[C] 2 [D] -3

122. The value of $\left[\frac{83.7 \times 83.7 + 16.3 \times 16.3 - 83.7 \times 16.3}{0.837 \times 0.837 \times 0.837 + 0.163 \times 0.163 \times 0.163} \right] \div 333 \frac{1}{3}$ is?

$\left[\frac{83.7 \times 83.7 + 16.3 \times 16.3 - 83.7 \times 16.3}{0.837 \times 0.837 \times 0.837 + 0.163 \times 0.163 \times 0.163} \right] \div 333 \frac{1}{3}$ का मान क्या है?

- [A] 25 [B] 30
[C] 33 [D] 0.3

123. If the value of $\frac{52.5 \times 52.5 - 2493.75 + 47.5 \times 47.5}{525^3 + 475^3} = 10^{-k}$ Then find the value of k =?

यदि $\frac{52.5 \times 52.5 - 2493.75 + 47.5 \times 47.5}{525^3 + 475^3} = 10^{-k}$ फिर k का मान ज्ञात कीजिए?

- [A] 3 [B] 4
[C] 5 [D] 6

124. $A = \frac{0.216 + 0.008}{0.36 + 0.04 - 0.12}$ and $B = \frac{0.729 - 0.027}{0.81 + 0.09 + 0.27}$, then find the value of $(A^2 + B^2)$?

- [A] 0.8 [B] 1
[C] 2.2 [D] 1.44

125. If $x = \sqrt[3]{65}$ and $y = 4$, find $x + y - \frac{1}{x^2 + xy + y^2}$?

यदि $x = \sqrt[3]{65}$, $y = 4$ है, तो $x + y - \frac{1}{x^2 + xy + y^2}$ ज्ञात कीजिये?

- [A] 0 [B] 8
[C] -8 [D] 2

126. Simplify $\sqrt{\frac{2021^3 - 2019^3 - 2}{6}}$?

$\sqrt{\frac{2021^3 - 2019^3 - 2}{6}}$ सरल करें

- [A] 2022 [B] 2021
[C] 2020 [D] 2019

127. $\frac{(2002^3) - (1002)^3 - (1000)^3}{3 \times 1002 \times 1000} = ?$

- [A] 2003 [B] 2001



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[C] 2002

[D] 2004

$$a^3 + b^3 + c^3 - 3abc = (a + b + c)(a^2 + b^2 + c^2 - ab - bc - ca)$$

$$\frac{a^3 + b^3 + c^3 - 3abc}{a^2 + b^2 + c^2 - ab - bc - ca} = a + b + c$$

128. $\frac{\frac{111}{3 \cdot 3 \cdot 3} + \frac{111}{4 \cdot 4 \cdot 4} - 3 \cdot \frac{111}{3 \cdot 4 \cdot 5} + \frac{111}{5 \cdot 5 \cdot 5}}{\frac{11}{3 \cdot 3} + \frac{11}{4 \cdot 4} + \frac{11}{5 \cdot 5} - \left(\frac{11}{3 \cdot 4} + \frac{11}{4 \cdot 5} + \frac{11}{5 \cdot 3}\right)} = ?$

[A] $\frac{2}{3}$

[B] $\frac{3}{4}$

[C] $\frac{47}{60}$

[D] $\frac{49}{60}$

129. $\frac{(1.2)^3 + (0.8)^3 + (0.7)^3 - 2.016}{1.35[(1.2)^2 + (0.8)^2 + (0.7)^2 - 0.96 - 0.84 - 0.56]} = ?$

[A] $\frac{1}{4}$

[B] $\frac{1}{2}$

[C] 1

[D] 2

130. Simplify the expression $\frac{(2.3)^3 + (15.9)^3 + (3.7)^3 - 3 \cdot 2.3 \cdot 15.9 \cdot 3.7}{(2.3)^2 + (15.9)^2 + (3.7)^2 - 2.3 \cdot 15.9 - 15.9 \cdot 3.7 - 3.7 \cdot 2.3}$?

व्यंजक $\frac{(2.3)^3 + (15.9)^3 + (3.7)^3 - 3 \cdot 2.3 \cdot 15.9 \cdot 3.7}{(2.3)^2 + (15.9)^2 + (3.7)^2 - 2.3 \cdot 15.9 - 15.9 \cdot 3.7 - 3.7 \cdot 2.3}$ को सरल कीजिए?

[SSC SELECTION POST (PHASE XII) 2024]

[A] 17.6

[B] 14.5

[C] 20.9

[D] 21.9

131. The value of $\frac{[(2.5)^3 + (4.7)^3 + (2.8)^3 - 7.5 \cdot 4.7 \cdot 2.8]}{[(25)^2 + (47)^2 + (28)^2 - 25 \cdot 47 - 47 \cdot 28 - 28 \cdot 25]} = ?$

[A] 0.1

[B] 0.001

[C] 1

[D] 0.01

132. Simplify the following expression/निम्नलिखित व्यंजक को हल कीजिए।

$$\frac{(2.01 \times 2.01 \times 2.01) + (39.75 \times 39.75 \times 39.75) + (28.24 \times 28.24 \times 28.24) - 3(2.01 \times 39.75 \times 28.24)}{(2.01 \times 2.01) + (39.75 \times 39.75) + (28.24 \times 28.24) - (2.01 \times 39.75) - (39.75 \times 28.24) - (28.24 \times 2.01)}$$

[A] 140

[B] 50

[C] 70

[D] 100

133. Simplify the given expression./दिए गए व्यंजक को सरल कीजिए।

$$\frac{(80 \times 80 \times 80) + (70 \times 70 \times 70) + (50 \times 50 \times 50) - 840000}{6400 + 4900 + 2500 - 5600 - 3500 - 4000}$$

[SSC CHSL 2023 PRE]

[A] 100

[B] 300

[C] 200

[D] 400

134. $107 \times \frac{1}{2 + \frac{3}{4 + \frac{5}{2 + \frac{1}{3}}}} = ?$

[A] 107

[B] $\frac{107}{43}$

[C] 43

[D] $\frac{43}{107}$

135. $\frac{1}{2 - \frac{1}{3 + \frac{1}{2 - \frac{1}{4 + \frac{1}{2}}}}} = ?$

[A] $\frac{16}{57}$

[B] $\frac{57}{98}$



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136. $\frac{1}{2 - \frac{1}{3 - \frac{1}{2 - \frac{1}{4 - \frac{1}{2}}}}} = ?$

[C] $\frac{19}{98}$

[D] $\frac{57}{16}$

[A] $\frac{46}{29}$

[B] $\frac{29}{46}$

[C] $\frac{12}{29}$

[D] $\frac{7}{29}$

137. $\frac{1}{1 + \frac{4}{1 + \frac{7}{1 + \frac{1}{1 + \frac{1}{3}}}}} = ?$

[A] $\frac{41}{116}$

[B] $\frac{116}{25}$

[C] $\frac{116}{41}$

[D] $\frac{75}{41}$

138. If $x = \frac{1}{2 + \frac{5}{4 + \frac{7}{6 + \frac{9}{8 + \frac{10}{10}}}}}$, then which one of the following is correct?

यदि $x = \frac{1}{2 + \frac{5}{4 + \frac{7}{6 + \frac{9}{8 + \frac{10}{10}}}}}$, तो निम्नलिखित में से कौन सा सही है?

(CDS-1 2024)

[A] $0 < x < 0.5$

[B] $x = 0.5$

[C] $0.5 < x < 1.0$

[D] $x > 1.0$

139. If $4 - \left[\frac{5}{1 + \frac{1}{3 + \frac{1}{2 + \frac{1}{4}}}} \right]$

$\left. \begin{array}{l} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array} \right\} \text{th}$

part of a journey takes 10 minutes, then to complete $\frac{3}{5}$ th of that journey, it will take

[A] 40 minutes

[B] 45 minutes

[C] 48 minutes

[D] 36 minutes

140. If a, b, c, d are integers such that $\frac{1}{a + \frac{1}{b + \frac{1}{c + \frac{1}{d}}}} = \frac{29}{154}$, then $a + b + c + d = ?$

[A] 12

[B] 13

[C] 14

[D] 15

141. If $\frac{1}{a + \frac{1}{2b + \frac{1}{3c + \frac{1}{d}}}} = \frac{30}{43}$ then $a + b + c + d = ?$

[A] 3

[B] 4

[C] 5

[D] 6

142. If $\frac{1}{a + \frac{1}{b + \frac{1}{c + \frac{1}{d + \frac{1}{e}}}}} = \frac{421}{972}$, then what is the value of $a \times b \times c \times d \times e$?



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यदि $\frac{1}{a + \frac{1}{b + \frac{1}{c + \frac{1}{d + \frac{1}{e}}}}} = \frac{421}{972}$, तो $a \times b \times c \times d \times e$ का मान क्या है?

(CDS-1 2024)

- [A] 720 [B] 480
[C] 360 [D] 600

143. If $\frac{45}{53} = \frac{1}{a + \frac{1}{b + \frac{1}{c - \frac{2}{5}}}}$, where a, b and c are positive integers, then what is the value of $(4a - b + 3c)$?

यदि $\frac{45}{53} = \frac{1}{a + \frac{1}{b + \frac{1}{c - \frac{2}{5}}}}$ है, जहाँ a, b और c धनात्मक पूर्णांक हैं, तो $(4a - b + 3c)$ का मान ज्ञात कीजिए?

- [A] 5 [B] 4
[C] 6 [D] 7

144. If $\frac{1}{x + \frac{1}{y + \frac{1}{z + \frac{1}{4}}}} = \frac{29}{79}$, where x, y and z are natural numbers, then the value of $(2x + 3y - z)$ is:

यदि $\frac{1}{x + \frac{1}{y + \frac{1}{z + \frac{1}{4}}}} = \frac{29}{79}$ है, जहाँ x, y और z प्राकृतिक संख्याएँ हैं, तो $(2x + 3y - z)$ का मान ज्ञात कीजिए।

- [A] 1 [B] 4
[C] 0 [D] 2

145. $(1 - \frac{1}{2^2})(1 - \frac{1}{3^2})(1 - \frac{1}{4^2}) \dots \dots \dots (1 - \frac{1}{120^2}) = ?$

- [A] $\frac{119}{240}$ [B] $\frac{119}{120}$
[C] $\frac{120}{240}$ [D] $\frac{121}{240}$

146. If $(1 - \frac{1}{2^2})(1 - \frac{1}{3^2})(1 - \frac{1}{4^2}) \dots \dots \dots (1 - \frac{1}{N^2}) = \frac{85}{168}$, then the value of N is :

- [A] 84 [B] 82
[C] 81 [D] 80

147. Solve the following $\{1 - \frac{1}{37}\}\{1 - \frac{2}{37}\} \dots \dots \dots \{1 - \frac{49}{37}\}\{1 - \frac{50}{37}\} ?$

निम्नलिखित $\{1 - \frac{1}{37}\}\{1 - \frac{2}{37}\} \dots \dots \dots \{1 - \frac{49}{37}\}\{1 - \frac{50}{37}\}$ को हल कीजिये?

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- [A] $\frac{1}{111}$ [B] 0
[C] $\frac{3}{74}$ [D] $-\frac{19}{185}$

148. When simplified, the product $(2 - \frac{1}{3})(2 - \frac{3}{5})(2 - \frac{5}{7}) \dots (2 - \frac{997}{999})$ equals

- [A] $\frac{5}{999}$ [B] $\frac{5}{3}$
[C] $\frac{1001}{999}$ [D] $\frac{1001}{3}$

149. Find the value of $\sqrt{(1 + 3 + 5 \dots \dots + 93)(1 - \frac{1}{3})(1 - \frac{1}{4})(1 - \frac{1}{5}) \dots \dots (1 - \frac{1}{2209})}$

- [A] $\sqrt{2}$ [B] 4



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[C] 2

[D] 3

150. Find the value of $999\frac{1}{7} + 999\frac{2}{7} + 999\frac{3}{7} + \dots \dots \dots 999\frac{6}{7}$?

$999\frac{1}{7} + 999\frac{2}{7} + 999\frac{3}{7} + \dots \dots \dots 999\frac{6}{7}$ का मान ज्ञात कीजिये?

[A] 5994

[B] 5995

[C] 5997

[D] 5998

151. What is the value of $99\frac{11}{99} + 99\frac{13}{99} + 99\frac{15}{99} + \dots \dots 99\frac{67}{99}$?

$99\frac{11}{99} + 99\frac{13}{99} + 99\frac{15}{99} + \dots \dots 99\frac{67}{99}$ का मान क्या है?

[A] 94220/33

[B] 96220/33

[C] 97120/33

[D] 95120/33

152. What is the value of $2010\frac{2009}{2010} \times 2011\frac{2009}{2010} - 2009\frac{2009}{2010} \times 2012\frac{2009}{2010}$?

$2010\frac{2009}{2010} \times 2011\frac{2009}{2010} - 2009\frac{2009}{2010} \times 2012\frac{2009}{2010}$ का मान क्या है?

[A] 2010

[B] 2011

[C] 2

[D] 4

153. $9\frac{1}{9} + 99\frac{2}{9} + 999\frac{3}{9} + 9999\frac{4}{9} + 99999\frac{5}{9} + 999999\frac{6}{9} + 9999999\frac{7}{9} + 99999999\frac{8}{9}$

[A] 111111106

[B] 111111107

[C] 111111105

[D] 1111111060

154. $\frac{1}{1 \times 2} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \dots \dots \dots + \frac{1}{99 \times 100} = ?$

[A] $\frac{99}{100}$

[B] $\frac{98}{99}$

[C] $\frac{100}{101}$

[D] $\frac{97}{100}$

155. If $\frac{1}{1 \times 2} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \dots \dots \dots + \frac{1}{n(n+1)} = \frac{249}{250}$ then what is the value of n?

यदि $\frac{1}{1 \times 2} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \dots \dots \dots + \frac{1}{n(n+1)} = \frac{249}{250}$ है तो n का मान ज्ञात करो।

[A] 299

[B] 249

[C] 250

[D] 248

156. $\frac{1}{3 \times 7} + \frac{1}{7 \times 11} + \frac{1}{11 \times 15} + \dots \dots + \frac{1}{899 \times 903} = ?$

[A] $\frac{21}{509}$

[B] $\frac{18}{403}$

[C] $\frac{25}{301}$

[D] $\frac{29}{31}$

157. If $a_1 = \frac{1}{2 \times 5}$, $a_2 = \frac{1}{5 \times 8}$, $a_3 = \frac{1}{8 \times 11}$ then, $a_1 + a_2 + a_3 + \dots \dots + a_{100} = ?$

[A] $\frac{25}{151}$

[B] $\frac{30}{157}$

[C] $\frac{1}{4}$

[D] $\frac{9}{55}$

158. $\frac{1}{7^2 - 3^2} + \frac{1}{13^2 - 3^2} + \frac{1}{19^2 - 3^2} + \dots \dots + \frac{1}{49^2 - 3^2} = ?$

[A] $\frac{1}{26}$

[B] $\frac{3}{52}$

[C] $\frac{1}{13}$

[D] $\frac{3}{26}$

159. $\frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \frac{1}{56} + \frac{1}{72} + \frac{1}{90} + \frac{1}{110} + \frac{1}{132} = ?$

160. Evaluate: $\frac{1}{15} + \frac{1}{35} + \frac{1}{63} + \frac{1}{99} + \frac{1}{143}$.

$\frac{1}{15} + \frac{1}{35} + \frac{1}{63} + \frac{1}{99} + \frac{1}{143}$ का मान ज्ञात कीजिए।



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161. $\frac{1}{1+2} + \frac{1}{1+2+3} + \frac{1}{1+2+3+4} + \dots + \frac{1}{1+2+3+\dots+51} = ?$
 [A] $\frac{4}{39}$ [B] $\frac{7}{39}$
 [C] $\frac{5}{39}$ [D] $\frac{10}{39}$
162. Find x, if $x + \frac{x}{1+2} + \frac{x}{1+2+3} + \dots + \frac{x}{1+2+3+\dots+4041} = 4041?$
 x ज्ञात कीजिये, यदि $x + \frac{x}{1+2} + \frac{x}{1+2+3} + \dots + \frac{x}{1+2+3+\dots+4041} = 4041$
 [A] 2021 [B] 2070
 [C] 2650 [D] 2020
163. $\frac{1}{8} + \frac{1}{15} + \frac{1}{24} + \frac{1}{35} + \frac{1}{48} + \dots + \frac{1}{528} + \frac{1}{575} = ?$
 [A] $\frac{1}{3}$ [B] $\frac{481}{1200}$
 [C] $\frac{255}{1024}$ [D] $\frac{163}{432}$
164. What is the sum of $1\frac{1}{2} + 4\frac{1}{6} + 7\frac{1}{12} + 10\frac{1}{20} \dots$ Upto 20 terms?
 [A] $\frac{12410}{21}$ [B] $\frac{12412}{21}$
 [C] $\frac{12433}{21}$ [D] $\frac{11794}{21}$
165. What is the value of $\frac{3^2+1}{3^2-1} + \frac{5^2+1}{5^2-1} + \frac{7^2+1}{7^2-1} + \dots + \frac{21^2+1}{21^2-1}?$
 $\frac{3^2+1}{3^2-1} + \frac{5^2+1}{5^2-1} + \frac{7^2+1}{7^2-1} + \dots + \frac{21^2+1}{21^2-1}$ का मान क्या है?
 [A] $\frac{112}{11}$ [B] $\frac{113}{11}$
 [C] $\frac{114}{11}$ [D] $\frac{115}{11}$
166. $\frac{1}{3 \times 4 \times 5} + \frac{1}{4 \times 5 \times 6} + \frac{1}{5 \times 6 \times 7} + \dots + \frac{1}{18 \times 19 \times 20} = ?$
 [A] $\frac{23}{570}$ [B] $\frac{21}{570}$
 [C] $\frac{7}{190}$ [D] none of these
167. $\frac{1}{1 \times 3 \times 5} + \frac{1}{1 \times 4} + \frac{1}{3 \times 5 \times 7} + \frac{1}{4 \times 7} + \frac{1}{5 \times 7 \times 9} + \frac{1}{7 \times 10} + \dots$ 20 times
 [A] $\frac{6179}{15275}$ [B] $\frac{6070}{14973}$
 [C] $\frac{7191}{15174}$ [D] $\frac{5183}{16923}$
168. $\frac{1}{1 \times 2 \times 3 \times 4} + \frac{1}{2 \times 3 \times 4 \times 5} + \dots + \frac{1}{15 \times 16 \times 17 \times 18} = ?$
 [A] $\frac{815}{14688}$ [B] $\frac{815}{7344}$
 [C] $\frac{713}{14688}$ [D] $\frac{713}{7344}$
169. The value of $\frac{3}{1^2 \times 2^2} + \frac{5}{2^2 \times 3^2} + \frac{7}{3^2 \times 4^2} + \frac{9}{4^2 \times 5^2} + \dots + \frac{19}{9^2 \times 10^2}$ is:
 [A] $\frac{1}{100}$ [B] $\frac{99}{100}$
 [C] 1 [D] $\frac{11}{100}$
170. $\frac{(4 \times 7 + 2)(6 \times 9 + 2) \dots (100 \times 103 + 2)}{(5 \times 8 + 2)(7 \times 10 + 2) \dots (99 \times 102 + 2)} = ?$
 [A] 510 [B] 640
 [C] 500 [D] 615
171. Simplify $\frac{(1 + \frac{27}{1})(1 + \frac{27}{2})(1 + \frac{27}{3})(1 + \frac{27}{4}) \dots (1 + \frac{27}{49})}{(1 + \frac{49}{1})(1 + \frac{49}{2})(1 + \frac{49}{3})(1 + \frac{49}{4}) + \dots (1 + \frac{49}{27})} = ?$



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[A] 1

[B] 2

[C] 3

[D] 21

172. If $\frac{1}{1^2} + \frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{4^2} + \dots = \frac{\pi^2}{6}$ Then $\frac{1}{1^2} + \frac{1}{3^2} + \frac{1}{5^2} + \dots = ?$

[A] $\frac{\pi^2}{12}$

[B] $\frac{\pi^2}{8}$

[C] $\frac{\pi^2}{16}$

[D] $\frac{\pi^2}{6}$

173. Evaluate $\left(\frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{2009}\right) \left(1 + \frac{1}{2} + \dots + \frac{1}{2008}\right) - \left(1 + \frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{2009}\right)$

$\left(\frac{1}{2} + \frac{1}{3} + \dots + \frac{1}{2008}\right)?$

$\left(\frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{2009}\right) \left(1 + \frac{1}{2} + \dots + \frac{1}{2008}\right) - \left(1 + \frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{2009}\right) \left(\frac{1}{2} + \frac{1}{3} + \dots + \frac{1}{2008}\right)$

का मूल्यांकन कीजिये?

[A] $\frac{2007}{4018}$

[B] $\frac{-2007}{4018}$

[C] $\frac{207}{4018}$

[D] $\frac{-6055}{4018}$

174. If the product of three consecutive positive integers is 15600, then the sum of the squares of these integers is?

यदि तीन लगातार धनात्मक पूर्णांक का गुणनफल 15600 है, तो इन पूर्णांकों के वर्ग का योग है?

[A] 1777

[B] 1785

[C] 1875

[D] 1877

175. What is the value of $\frac{1996^{2020} + 1996^{2019} + 1997}{1996^{2019} + 1}$?

$\frac{1996^{2020} + 1996^{2019} + 1997}{1996^{2019} + 1}$ का मान क्या है?

[A] 2020

[B] 2019

[C] 1996

[D] 1997

176. If $P = \frac{96}{95 \times 97}$, $Q = \frac{97}{96 \times 98}$ and $R = \frac{1}{97}$, then which of the following is TRUE?

यदि $P = \frac{96}{95 \times 97}$, $Q = \frac{97}{96 \times 98}$ तथा $R = \frac{1}{97}$ हैं, तो निम्नलिखित में से कौन सा सत्य है?

[A] $P < Q < R$

[B] $R < Q < P$

[C] $Q < P < R$

[D] $R < P < Q$

177. On one side of 1.01 km long road, 101 plants are planted at equal distance from each other. What is the total distance between 5 consecutive plants?

1.01 किमी लंबी सड़क के एक तरफ एक दूसरे से समान दूरी पर 101 पौधे लगाए गए हैं। लगातार 5 पौधों के बीच की कुल दूरी कितनी है?

[A] 40 m

[B] 40.4 m

[A] 50 m

[B] 50.5 m

178. If $847 \times 385 \times 675 \times 3025 = 3^a \times 5^b \times 7^c \times 11^d$, then the value of $ab - cd$ is:

यदि $847 \times 385 \times 675 \times 3025 = 3^a \times 5^b \times 7^c \times 11^d$, तो $ab - cd$ का मान क्या होगा:

[A] 4

[B] 5

[C] 1

[D] 7

179. If $I = a^2 + b^2 + c^2$, where a and b are consecutive integers and $c = ab$, then I is

यदि $I = a^2 + b^2 + c^2$ है जहां a और b कमागत पूर्णांक हैं और $c = ab$ है तो I क्या है?



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[A] An even number and it is not a square of an integer/एक सम संख्या और यह एक पूर्णांक का वर्ग नहीं है

[B] An odd number and it is not a square of an integer/एक विषम संख्या और एक पूर्णांक का वर्ग नहीं है।

[C] Square of an even integer/एक सम पूर्णांक का वर्ग

[D] Square of an odd integer/एक विषम पूर्णांक का वर्ग

180. Simplify the following/ निम्न को सरल करें।

$$3\frac{1}{7} + 2\frac{2}{9} - 1\frac{4}{63}$$

[A] $4\frac{19}{63}$

[B] $2\frac{25}{63}$

[C] $1\frac{19}{63}$

[D] $3\frac{11}{63}$

181. If $(1.25)(1 - 6.4 \times 10^{-5}) = 1.2496 + a$, then a is equal to:

यदि $(1.25)(1 - 6.4 \times 10^{-5}) = 1.2496 + a$ है तो a बराबर है:

[A] 0.0016

[B] 0.00016

[C] 0.0032

[D] 0.00032

182. Find the value of the given expression?

दिए गए व्यंजक का मान बताइये?

$$[76 - \{90 \div 5 \times (24 - 36 \div 3) \div 3\}]$$

[A] 71.5

[B] 4

[C] 75.5

[D] 77.5

183. The value of $272 \div 16 + [119 \div \{1491 \div 3 (21 - 13 \times 8 + 4 \times 3)\}]$ is.

$272 \div 16 + [119 \div \{1491 \div 3 (21 - 13 \times 8 + 4 \times 3)\}]$ को हल कीजिए।

[A] -9

[B] 0

[C] 8

[D] 11

184. The value of $54 \div 16$ of $3 \times [12 \div 4$ of $\{6 \times 3 \div (11 - 2)\}] \div (12 \div 8 \times 2)$ is:

$54 \div 16$ of $3 \times [12 \div 4$ of $\{6 \times 3 \div (11 - 2)\}] \div (12 \div 8 \times 2)$ का मान ज्ञात करें।

[A] $\frac{3}{4}$

[B] $\frac{9}{16}$

[C] $\frac{3}{8}$

[D] $\frac{9}{8}$

185. The value of $90 \div 20$ of $6 \times [11 \div 4$ of $\{3 \times 2 - (3 - 8)\}] \div (9 \div 3 \times 2)$ is?

$90 \div 20$ of $6 \times [11 \div 4$ of $\{3 \times 2 - (3 - 8)\}] \div (9 \div 3 \times 2)$ का मान ज्ञात करें।

[A] $\frac{1}{36}$

[B] $\frac{1}{32}$

[C] $\frac{9}{8}$

[D] $\frac{3}{8}$

186. The value of $9 \times 6 \div 24 + 8 \div 2$ of $5 - 30 \div 4$ of $4 + 27 \times 5 \div 9$ is:

$9 \times 6 \div 24 + 8 \div 2$ of $5 - 30 \div 4$ of $4 + 27 \times 5 \div 9$ का मान है:

[A] $\frac{259}{8}$

[B] $\frac{647}{40}$

[C] $\frac{493}{8}$

[D] $\frac{243}{8}$

187. $72 \div 8 \times [\{(57 - 49) \div 2\} + \{(85 - 60) \div 5\} - \{(28 - 19) \div 3\}]$ is equal to:



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$72 \div 8 \times [\{ (57 - 49) \div 2 \} + \{ (85 - 60) \div 5 \} - \{ (28 - 19) \div 3 \}]$ का मान ज्ञात करो?

[A] 56

[B] 46

[C] 54

[D] 60

188. If $640 \div 8 + 930 \div 15 - k + 32 \times 5 = 1104 \div 16 \times 148 \div 37$, then the value of k is?

यदि $640 \div 8 + 930 \div 15 - k + 32 \times 5 = 1104 \div 16 \times 148 \div 37$, तो k का मान क्या है?

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[A] 276

[B] 26

[C] 35

[D] 302

189. Select the correct combination and order of mathematical signs to replace '*' such that the equation is balanced:

समीकरण को संतुलित करने के लिए '*' को प्रतिस्थापित करने के लिए गणितीय चिह्नों के सही संयोजन और क्रम का चयन करें:

$172 * 86 * 14 * 2 = 30$

[A] $\div, -, +$

[B] $\div, +, \times$

[C] $\div, -, \times$

[D] $\div, +, \div$

190. If ' \div ' means ' \times ', ' \times ' means ' \div ', ' $+$ ' means ' $-$ ', ' $-$ ' means ' $+$ ', then $47 \div (10 \times 5) + (4 - 5) - 6$ is:

यदि ' \div ' का अर्थ ' \times ' है, ' \times ' का अर्थ ' \div ' है, ' $+$ ' का अर्थ ' $-$ ' है, ' $-$ ' का अर्थ ' $+$ ' है, तो $47 \div (10 \times 5) + (4 - 5) - 6$ है:

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[A] 91

[B] 59

[C] 79

[D] 100

191. If $x=0.35$ and $y=6/5$, then the value of $x \times y \div (100x - 30y) \times \left(\frac{y}{2.1}\right) + \frac{6}{y}$ is _____?

यदि $x=0.35$ और $y=6/5$, तो $x \times y \div (100x - 30y) \times \left(\frac{y}{2.1}\right) + \frac{6}{y}$ का मान _____ है?

[A] 4.76

[B] 4.67

[C] 6.47

[D] 7.46

192. Which number is larger 1 or $\frac{23}{93} + \frac{33}{133} + \frac{43}{173} + \frac{53}{213}$?

कौन सी संख्या बड़ी है: 1 or $\frac{23}{93} + \frac{33}{133} + \frac{43}{173} + \frac{53}{213}$

[A] 1

[B] $\frac{23}{93} + \frac{33}{133} + \frac{43}{173} + \frac{53}{213}$

[C] Equal

[D] None

193. Find $\frac{1}{8} \div \frac{1}{8} \div \frac{1}{8} \div \frac{1}{8} \div \frac{1}{8}$?

$\frac{1}{8} \div \frac{1}{8} \div \frac{1}{8} \div \frac{1}{8} \div \frac{1}{8}$ ज्ञात कीजिये?

[A] 512

[B] 600

[C] 500

[D] 700

194. Simplify $6\frac{4}{5} \div [4\frac{1}{4} \div \{5\frac{1}{3} \times \frac{3}{8} + (3\frac{1}{2} + \frac{2}{3}) \times \frac{4}{5}\}]$?



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$6\frac{4}{5} \div \left[4\frac{1}{4} \div \left\{ 5\frac{1}{3} \times \frac{3}{8} + \left(3\frac{1}{2} + \frac{2}{3} \right) \times \frac{4}{5} \right\} \right]$ को सरल बनाएं?

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[A] $8\frac{8}{15}$

[B] $7\frac{8}{15}$

[C] $7\frac{8}{25}$

[D] $8\frac{8}{25}$

195. The value of $\frac{17.35 + \frac{7}{5} \text{ of } 55 - 7}{(42 \div 6 \times 8.35) - \frac{3}{7} \text{ of } \left(\frac{2}{3} - \frac{1}{5} \right) + [291 \div (80 \div 8)]}$:

$\frac{17.35 + \frac{7}{5} \text{ of } 55 - 7}{(42 \div 6 \times 8.35) - \frac{3}{7} \text{ of } \left(\frac{2}{3} - \frac{1}{5} \right) + [291 \div (80 \div 8)]}$ का मान है?

[A] 1

[B] 3

[C] 2

[D] 4

196. What is the value of $\frac{7 \times 4 \div 8}{5 \times 25 \div 125} + \frac{5 \times 4 \div 8}{8 \times 4 \div 16} - \frac{7 \times 4 \div 2}{8 \times 7 \div 4}$?

$\frac{7 \times 4 \div 8}{5 \times 25 \div 125} + \frac{5 \times 4 \div 8}{8 \times 4 \div 16} - \frac{7 \times 4 \div 2}{8 \times 7 \div 4}$ का मान क्या है?

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[A] 4

[B] $13/4$

[C] $15/4$

[D] $9/2$

197. Simplify the following expression.

निम्नलिखित व्यंजक का मान ज्ञात कीजिये।

$\left[\frac{85}{34} \times \frac{1}{18} - \left\{ \left(\frac{46}{69} \div \frac{27}{135} \right) - \left(\frac{86}{129} \times \frac{91}{14} \right) \right\} \text{ of } \frac{112}{36} \right]$

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[A] $3\frac{1}{5}$

[B] $3\frac{3}{4}$

[C] $3\frac{1}{2}$

[D] $3\frac{1}{4}$

198. What is the value of $\left[\frac{1}{8} + \left\{ \frac{1}{6} \times \left(\frac{36}{45} \div \frac{24}{25} \right) - \left(\frac{12}{21} \times \frac{14}{15} \div \frac{24}{45} \right) \right\} + \frac{27}{36} \right]$?

$\left[\frac{1}{8} + \left\{ \frac{1}{6} \times \left(\frac{36}{45} \div \frac{24}{25} \right) - \left(\frac{12}{21} \times \frac{14}{15} \div \frac{24}{45} \right) \right\} + \frac{27}{36} \right]$ का मान क्या है?

(MAINS 2023)

[A] $\frac{1}{27}$

[B] $\frac{1}{108}$

[C] $\frac{1}{72}$

[D] $\frac{1}{36}$

199. Simplify : $\frac{6}{5} \div \frac{6}{5} \text{ of } \frac{6}{5} \times \frac{5}{6} + \frac{9}{4} \div \frac{4}{5} \text{ of } \frac{15}{2} - \left\{ 8\frac{5}{9} + \left(\frac{4}{3} + \frac{5}{3} \text{ of } \frac{6}{25} \right) \right\}$

$\frac{6}{5} \div \frac{6}{5} \text{ of } \frac{6}{5} \times \frac{5}{6} + \frac{9}{4} \div \frac{4}{5} \text{ of } \frac{15}{2} - \left\{ 8\frac{5}{9} + \left(\frac{4}{3} + \frac{5}{3} \text{ of } \frac{6}{25} \right) \right\}$ का मान ज्ञात कीजिए।

[A] $-9\frac{9}{40}$

[A] $-9\frac{79}{360}$

[C] $-9\frac{7}{120}$

[D] $-8\frac{281}{360}$

200. The value of $56 \div [12 + 9 \div 3 - \{8 + (18 \text{ of } 2 \div 9) - (40 \div 5 \text{ of } 2)\}] + \frac{27 + \frac{2}{5} \text{ of } 75}{5 + \frac{2}{3} \times (58 - 37)}$ is:

$56 \div [12 + 9 \div 3 - \{8 + (18 \text{ of } 2 \div 9) - (40 \div 5 \text{ of } 2)\}] + \frac{27 + \frac{2}{5} \text{ of } 75}{5 + \frac{2}{3} \times (58 - 37)}$ का मान ज्ञात करें।

[A] 8

[B] 11

[C] -11

[D] -8

201. Simplify/ सरल कीजिए।



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$$6\frac{4}{5} \div \left[4\frac{1}{4} \div \left\{ 5\frac{1}{3} \times \frac{3}{8} + \left(3\frac{1}{2} + \frac{2}{3} \right) \times \frac{4}{5} \right\} \right]$$

[A] $8\frac{8}{15}$

[B] $7\frac{8}{25}$

[C] $8\frac{8}{25}$

[D] $7\frac{8}{25}$

202. The value of 25% of 720 + 57 ÷ 19 × $\frac{1}{3}$ of $\frac{100}{11}$ of $\frac{33}{25}$ - 15% of 300 is:

25% of 720 + 57 ÷ 19 × $\frac{1}{3}$ of $\frac{100}{11}$ of $\frac{33}{25}$ - 15% of 300 का मान है

SSC CHSL TIER - I 2022

[A] 191

[B] 157

[C] 127

[D] 147

203. Simplify the following expression.

निम्न व्यंजक का मान ज्ञात कीजिए।

$$\frac{(12+5-\frac{48}{16}+71)+\left(\frac{72+6 \times 7}{36+6 \times 7}\right) \times [(51+4-13)+(13-12 \times 7)]}{232}$$

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[A] $\frac{-31}{233}$

[B] $\frac{31}{232}$

[C] $\frac{41}{232}$

[D] $\frac{-31}{232}$

204. What is the value of $\frac{5 \div 2 \times \frac{1}{5} \times \frac{1}{5} \div \frac{3}{5} \times \frac{5}{2}}{2 \div \frac{1}{5} \times \frac{1}{2} \times \frac{5}{2} \div \frac{25}{4} + \frac{1}{2} \div \frac{2}{5} \times \frac{1}{5}} ?$

$\frac{5 \div 2 \times \frac{1}{5} \times \frac{1}{5} \div \frac{3}{5} \times \frac{5}{2}}{2 \div \frac{1}{5} \times \frac{1}{2} \times \frac{5}{2} \div \frac{25}{4} + \frac{1}{2} \div \frac{2}{5} \times \frac{1}{5}}$ का मान क्या है?

[A] $\frac{31}{127}$

[B] $\frac{32}{127}$

[C] $\frac{28}{125}$

[D] $\frac{25}{123}$

205. The value of $25 \div 10 - \left(\frac{7}{4} \times \frac{1}{3} \right)$ of $\frac{6}{5} + \frac{14}{3} \times \frac{9}{10} + \left(\frac{1}{5} \div \frac{1}{25} \right)$ is:

$25 \div 10 - \left(\frac{7}{4} \times \frac{1}{3} \right)$ of $\frac{6}{5} + \frac{14}{3} \times \frac{9}{10} + \left(\frac{1}{5} \div \frac{1}{25} \right)$ का मान कितना होगा?

[A] 11

[B] 7

[C] 15

[D] 9

206. The value of $5\frac{2}{3} \div 1\frac{2}{3}$ of $4\frac{1}{4} - 2\frac{4}{5} + \left(2\frac{1}{3} + 2\frac{1}{2} - \frac{1}{6} \right) \div 2\frac{1}{3} + 5\frac{1}{3} \times \frac{3}{4} \div 2\frac{2}{3}$ is?

$5\frac{2}{3} \div 1\frac{2}{3}$ of $4\frac{1}{4} - 2\frac{4}{5} + \left(2\frac{1}{3} + 2\frac{1}{2} - \frac{1}{6} \right) \div 2\frac{1}{3} + 5\frac{1}{3} \times \frac{3}{4} \div 2\frac{2}{3}$ का मान है?

(ICAR Technician 2022)

[A] $\frac{3}{2}$

[B] $\frac{3}{8}$

[C] $\frac{4}{3}$

[D] $\frac{5}{4}$

207. What is the value of $\frac{5 \text{ of } \frac{1}{3} \times \frac{12}{25} - \frac{1}{3} \text{ of } \frac{5}{6} \times \frac{18}{25}}{\frac{25}{12} \text{ of } \frac{1}{6} \times \frac{2}{5} + \frac{3}{8} \text{ of } \frac{12}{25} \times \frac{5}{6}} ?$

$\frac{5 \text{ of } \frac{1}{3} \times \frac{12}{25} - \frac{1}{3} \text{ of } \frac{5}{6} \times \frac{18}{25}}{\frac{25}{12} \text{ of } \frac{1}{6} \times \frac{2}{5} + \frac{3}{8} \text{ of } \frac{12}{25} \times \frac{5}{6}}$ का मान क्या है?

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[A] $-\frac{3}{13}$

[B] $-\frac{5}{13}$



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[C] $-\frac{8}{25}$

[D] $-\frac{3}{25}$

208. What is the simplified value of $1 - \frac{1}{4 - \frac{2}{1 + \frac{1}{2 + \frac{1}{3}}}} \times \frac{15}{16} \div \frac{2}{3}$ of $2\frac{1}{4} - \frac{3+4}{3^3+4^3}$

$1 - \frac{1}{4 - \frac{2}{1 + \frac{1}{2 + \frac{1}{3}}}} \times \frac{15}{16} \div \frac{2}{3}$ of $2\frac{1}{4} - \frac{3+4}{3^3+4^3}$ को सरल करें।

[A] $\frac{6}{13}$
[C] $\frac{4}{13}$

[B] $\frac{5}{13}$
[D] $\frac{8}{13}$

209. What is the value of $\frac{7 \text{ of } 14 \div 4}{5 \times 4 \div 2} + \frac{6 \div 12 \times 3}{5 \div 25 \times 2} + \frac{15 \div 5 \times 6}{5 \times 15 \div 6}$?

$\frac{7 \text{ of } 14 \div 4}{5 \times 4 \div 2} + \frac{6 \div 12 \times 3}{5 \div 25 \times 2} + \frac{15 \div 5 \times 6}{5 \times 15 \div 6}$ का मान क्या है?

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[A] 7.64
[C] 7.62

[B] 7.44
[D] 7.22

210. What is the value of $\left[\frac{1}{5} + \left\{ \frac{1}{7} \text{ of } \left(\frac{25}{42} \div \frac{35}{6} \right) - \left(\frac{4}{7} \times \frac{6}{5} \div \frac{54}{63} \right) \right\} + \frac{28}{40} \right]$?

$\left[\frac{1}{5} + \left\{ \frac{1}{7} \text{ of } \left(\frac{25}{42} \div \frac{35}{6} \right) - \left(\frac{4}{7} \times \frac{6}{5} \div \frac{54}{63} \right) \right\} + \frac{28}{40} \right]$ का मान क्या होगा?

[A] $\frac{403}{3430}$
[C] $\frac{383}{3430}$

[B] $\frac{99}{490}$
[D] $\frac{393}{3430}$

211. The value of $\left[\{(232 \div 29 \text{ of } 2) + 77 \times 10\} \div 18 \right] - \frac{18 \times 8 \div 4 \text{ of } 3-4}{2 \times (8-6) + 1 - 2 \times 3 \div 4 \text{ of } \frac{1}{2}}$ is:

$\left[\{(232 \div 29 \text{ of } 2) + 77 \times 10\} \div 18 \right] - \frac{18 \times 8 \div 4 \text{ of } 3-4}{2 \times (8-6) + 1 - 2 \times 3 \div 4 \text{ of } \frac{1}{2}}$ का मान ज्ञात करें।

[A] 39
[C] 33

[B] 44
[D] 47

212. The value of $2\frac{1}{4}$ of $\frac{1}{4} \div \frac{3}{5} \times \frac{8}{25} - 3\frac{2}{3} \div \frac{11}{15}$ of $\frac{2}{3} \times \frac{1}{10} + 1\frac{1}{2}$ is?

$2\frac{1}{4}$ of $\frac{1}{4} \div \frac{3}{5} \times \frac{8}{25} - 3\frac{2}{3} \div \frac{11}{15}$ of $\frac{2}{3} \times \frac{1}{10} + 1\frac{1}{2}$ का मान है?

[A] $1\frac{1}{6}$
[C] $2\frac{1}{6}$

[B] $1\frac{1}{12}$
[D] $2\frac{1}{3}$

213. Simplify/ सरलीकृत करें:

$\frac{27}{14} \div \frac{24}{7}$ of $\frac{63}{28} - \frac{9}{4} \div \frac{196}{95}$
 $\frac{35}{8} \div \frac{15}{4}$ of $\frac{7}{48} + \frac{5}{16}$



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[A] $-\frac{40}{357}$
[C] $-\frac{40}{343}$

[B] $\frac{40}{343}$
[D] $-\frac{40}{243}$

214. What is the value of $\left[\frac{1}{8} + \left\{\frac{1}{6} \times \left(\frac{36}{45} \div \frac{24}{25}\right) - \left(\frac{12}{21} \times \frac{14}{15} \div \frac{24}{45}\right)\right\} + \frac{27}{36}\right]$?

$\left[\frac{1}{8} + \left\{\frac{1}{6} \times \left(\frac{36}{45} \div \frac{24}{25}\right) - \left(\frac{12}{21} \times \frac{14}{15} \div \frac{24}{45}\right)\right\} + \frac{27}{36}\right]$ का मान क्या है?

(MAINS 2023)

[A] $1/27$

[B] $1/108$

[C] $1/72$

[D] $1/36$

215. The value of 25% of 720 + 57 ÷ 19 × $\frac{1}{3}$ of $\frac{100}{11}$ of $\frac{33}{25}$ - 15% of 300 is:

25% of 720 + 57 ÷ 19 × $\frac{1}{3}$ of $\frac{100}{11}$ of $\frac{33}{25}$ - 15% of 300 का मान है:

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[A] 191

[B] 157

[C] 127

[D] 147

216. The value of $3\frac{1}{5} \div 4\frac{1}{2}$ of $5\frac{1}{3} + \frac{1}{8} \div \frac{1}{2}$ of $\frac{1}{4} - \frac{1}{4}\left(\frac{1}{2} \div \frac{1}{8} \times \frac{1}{4}\right)$ is:

$3\frac{1}{5} \div 4\frac{1}{2}$ of $5\frac{1}{3} + \frac{1}{8} \div \frac{1}{2}$ of $\frac{1}{4} - \frac{1}{4}\left(\frac{1}{2} \div \frac{1}{8} \times \frac{1}{4}\right)$ का मान ज्ञात कीजिए।

[A] $\frac{53}{60}$
[C] $\frac{7}{8}$

[B] $\frac{13}{15}$
[D] $\frac{3}{4}$

217. The value of $\left(5 \div 2 \text{ of } \frac{1}{2}\right) + \left(5\frac{1}{4} \div \frac{3}{7} \text{ of } \frac{1}{2}\right) \div \left(5\frac{1}{9} - 7\frac{7}{8} \div 9\frac{9}{20}\right) \times \frac{11}{21}$ is:

$\left(5 \div 2 \text{ of } \frac{1}{2}\right) + \left(5\frac{1}{4} \div \frac{3}{7} \text{ of } \frac{1}{2}\right) \div \left(5\frac{1}{9} - 7\frac{7}{8} \div 9\frac{9}{20}\right) \times \frac{11}{21}$ का मान ज्ञात करें।

[A] $\frac{35}{24}$
[C] $\frac{15}{28}$

[B] 8
[D] -2

218. The value of $\left[\frac{4}{7} \text{ of } 2\frac{4}{5} \times 1\frac{2}{3} - \left(3\frac{1}{2} - 2\frac{1}{6}\right)\right] \div \left(3\frac{1}{5} \div 4\frac{1}{2} \text{ of } 5\frac{1}{3}\right)$ is:

$\left[\frac{4}{7} \text{ of } 2\frac{4}{5} \times 1\frac{2}{3} - \left(3\frac{1}{2} - 2\frac{1}{6}\right)\right] \div \left(3\frac{1}{5} \div 4\frac{1}{2} \text{ of } 5\frac{1}{3}\right)$ का मान ज्ञात कीजिए।

[A] 10

[B] $7\frac{1}{2}$

[C] 15

[D] $1\frac{1}{3}$

219. A student was asked to find the value of $9\frac{4}{9} \div 11\frac{1}{3} \text{ of } \frac{1}{6} + \left(1\frac{1}{3} * 1\frac{4}{5} \div \frac{3}{5}\right) * 2\frac{1}{6} \text{ of } \frac{2}{3} \div \frac{4}{3} \text{ of } \frac{2}{3}$. His answer was $19\frac{1}{4}$. What is the difference between his answer and the correct answer?

एक विद्यार्थी को $9\frac{4}{9} \div 11\frac{1}{3} \text{ of } \frac{1}{6} + \left(1\frac{1}{3} * 1\frac{4}{5} \div \frac{3}{5}\right) * 2\frac{1}{6} \text{ of } \frac{2}{3} \div \frac{4}{3} \text{ of } \frac{2}{3}$ का मान निकालने के लिए कहा गया। उसका उत्तर $19\frac{1}{4}$ आया। उसके उत्तर और सही उत्तर में कितना अंतर है?

[A] $7\frac{3}{4}$
[C] $6\frac{2}{3}$

[B] $7\frac{1}{2}$
[D] $6\frac{1}{3}$

220. The value of $\left(1\frac{1}{3} \div 2\frac{6}{7} \text{ of } 5\frac{3}{5}\right) \div \left(6\frac{2}{5} \div 4\frac{1}{2} \text{ of } 5\frac{1}{3}\right) \times \left(\frac{3}{4} \times 2\frac{2}{3} \div \frac{5}{9} \text{ of } 1\frac{1}{5}\right) = 1 + k$, where k lies between:

$\left(1\frac{1}{3} \div 2\frac{6}{7} \text{ of } 5\frac{3}{5}\right) \div \left(6\frac{2}{5} \div 4\frac{1}{2} \text{ of } 5\frac{1}{3}\right) \times \left(\frac{3}{4} \times 2\frac{2}{3} \div \frac{5}{9} \text{ of } 1\frac{1}{5}\right) = 1 + k$, k का मान किस के बीच होगा:



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- [A] -0.05 and -0.04 [B] -0.07 and -0.06
[C] -0.08 and -0.07 [D] -0.06 and -0.05

221. The value of $\frac{(1\frac{1}{9} \times 1\frac{1}{20} \div \frac{21}{38} - \frac{1}{3}) \div (2\frac{4}{9} \div 1\frac{7}{15} \text{ of } \frac{3}{5})}{\frac{1}{5} \text{ of } \frac{1}{5} \div \frac{1}{125} - \frac{1}{25} \div \frac{1}{5} \text{ of } \frac{1}{5}}$ lies between

$\frac{(1\frac{1}{9} \times 1\frac{1}{20} \div \frac{21}{38} - \frac{1}{3}) \div (2\frac{4}{9} \div 1\frac{7}{15} \text{ of } \frac{3}{5})}{\frac{1}{5} \text{ of } \frac{1}{5} \div \frac{1}{125} - \frac{1}{25} \div \frac{1}{5} \text{ of } \frac{1}{5}}$ का मान किसके बीच में स्थित है?

- [A] 0.1 and 0.15 [B] 0.2 and 0.25
[C] 0.15 and 0.2 [D] 0.25 and 0.3

222. If $A = \frac{18 \div 9 \times 4}{15 \div 3 \times 5}$ and $B = \frac{18 \div 36 \times 3 + 5 \times 1 - 6}{18 \div 6 \times 20 - 3 \times 4 + 12}$, then what is the value of (A+B)?

यदि $A = \frac{18 \div 9 \times 4}{15 \div 3 \times 5}$ and $B = \frac{18 \div 36 \times 3 + 5 \times 1 - 6}{18 \div 6 \times 20 - 3 \times 4 + 12}$, तो (A + B) का मान क्या है?

SSC CHSL TIER - I 2022

- [A] 137/600 [B] 23/100
[C] 187/600 [D] 197/600

223. If $\frac{15}{8} + \left[\left\{ \frac{4}{5} \text{ of } \frac{5}{12} \div \left(1 \frac{1}{15} \right) \right\} \times 1 \frac{7}{12} \right]$ is expressed in the form of a/b where a and b are integers and relatively prime to each other, the value of $4b-a$ is?

यदि $\frac{15}{8} + \left[\left\{ \frac{4}{5} \text{ of } \frac{5}{12} \div \left(1 \frac{1}{15} \right) \right\} \times 1 \frac{7}{12} \right]$ को a/b के रूप में व्यक्त किया जाता है जहां a और b पूर्णांक हैं और एक दूसरे के सापेक्ष अभाज्य हैं, $4b-a$ का मान है?

SSC CHSL 2024

- [A] 313 [B] 225
[C] 164 [D] 189

224. If $A = \frac{9}{16} \div \frac{25}{36}$, $B = 9 \div [(16 \div 25) \div 36]$, $C = [9 \div (16 \div 25)] \div 36$, $D = (9 \div 16) \div (25 \div 36)$, then which of the following is true?

यदि $A = \frac{9}{16} \div \frac{25}{36}$, $B = 9 \div [(16 \div 25) \div 36]$, $C = [9 \div (16 \div 25)] \div 36$, $D = (9 \div 16) \div (25 \div 36)$, तो निम्नलिखित में से कौन सा सत्य है?

SSC CHSL 2024

- [A] B and D are equal [B] C and D are equal
[C] A and B are equal [D] A and D are equal

225. The value of $\frac{7+8 \times 8 \div 8 \text{ of } 8 + 8 \div 8 \times 4 \text{ of } 4}{4 \div 4 \text{ of } 4 + 4 \times 4 \div 4 - 4 \div 4 \text{ of } 2}$ is:

$\frac{7+8 \times 8 \div 8 \text{ of } 8 + 8 \div 8 \times 4 \text{ of } 4}{4 \div 4 \text{ of } 4 + 4 \times 4 \div 4 - 4 \div 4 \text{ of } 2}$ का मान है:

- [A] 4.6 [B] 8.7
[C] 7.8 [D] 6.4

226. Find the value of $15\% \text{ of } 1.5 + 0.15 \div 0.1 + 0.01 \text{ of } 1.1 \times 0.5 + 2.5 \times 25$.

$15\% \text{ of } 1.5 + 0.15 \div 0.1 + 0.01 \text{ of } 1.1 \times 0.5 + 2.5 \times 25$. का मान ज्ञात कीजिए।

SSC CPO Pre 2024

- [A] 77.2305 [B] 64.2305
[C] 62.2305 [D] 6.42305

227. Simplify the following / निम्नलिखित को सरल कीजिए।

$8.16 \times 5.35 + 17.9 - 19.5 \text{ of } \frac{1}{15} + \frac{1}{5}$



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- [A] 57.426 [B] 60.456
[C] 65.234 [D] 70.225

228. Find the value of $2.54 \times 0.4 - 0.58 \times 5.64 + 2.85 \times 3.14 - 0.84 + 4.8 \times 3.8 - 7.0938$.

$2.54 \times 0.4 - 0.58 \times 5.64 + 2.85 \times 3.14 - 0.84 + 4.8 \times 3.8 - 7.0938$ का मान ज्ञात कीजिए।

- [A] 21.58 [B] 19
[C] 17 [D] 23.67

229. $31^3 + 18^3 - 37^3 + 210$ is equal to:

$31^3 + 18^3 - 37^3 + 210$ बराबर है:

- [A] -36810 [B] -14820
[C] -45670 [D] -23450

230. If $28 \times 8 \times 988 \div \sqrt{2704} = y + 649$, then find y .

यदि $28 \times 8 \times 988 \div \sqrt{2704} = y + 649$, तो y ज्ञात कीजिए।

(RRB RPF SI 2024)

- [A] 3617 [B] 3609
[C] 3607 [D] 3608

231. What is the positive value of the following expression?

निम्नलिखित अभिव्यक्ति का धनात्मक मान क्या है?

$\sqrt{36 \div 15 \text{ of } 2 \text{ of } [25 \times 4 \div 4 \text{ of } \{29 - (8 - 11) \div (9 \times 5 \div 5 \text{ of } 3)\}]}$

- [A] $1\frac{5}{6}$ [B] $1\frac{1}{5}$
[C] $2\frac{4}{5}$ [D] $2\frac{3}{5}$

232. Simplify the following/ निम्नलिखित को हल कीजिए।

$81^{\frac{3}{4}} + [(20 \div 5 \text{ of } 3 \times 6) + \{(8 \div 24 \text{ of } 3) \times 4\} - 10 \div 5] - \left(\frac{1}{32}\right)^{-\frac{2}{5}}$

SSC CGL 2023 PRE

- [A] $24\frac{1}{4}$ [B] $21\frac{1}{9}$
[C] $27\frac{4}{5}$ [D] $29\frac{4}{9}$

233. $56\% \text{ of } 4800 - \{(9^3 \times 8) \div \sqrt{6561}\} - 48\% \text{ of } (81 \div 8) = ?$

- [A] 2612.14 [B] 2611.86
[C] 2612.86 [D] 2611.14

234. On simplifying the following expression, we get _____ $\frac{24\sqrt{45} - 16\sqrt{20} + \sqrt{245} - 47\sqrt{5}}{3\frac{1}{5} + 1\frac{2}{5} - 2\frac{1}{6} - 2\frac{1}{5} - 5\frac{2}{5} + 3\frac{1}{6}}$?

निम्नलिखित व्यंजक $\frac{24\sqrt{45} - 16\sqrt{20} + \sqrt{245} - 47\sqrt{5}}{3\frac{1}{5} + 1\frac{2}{5} - 2\frac{1}{6} - 2\frac{1}{5} - 5\frac{2}{5} + 3\frac{1}{6}}$ को सरल बनाने पर, हमें _____ मिलता है?

(MTS 2023)

- [A] 0 [B] 3
[C] 1 [D] 2

235. Evaluate $6.9 - [8.6 - \{6.5 - (5.4 - 4.3 - 2)\}]$

$6.9 - [8.6 - \{6.5 - (5.4 - 4.3 - 2)\}]$ का मान ज्ञात कीजिए।

(SSC CPO 2023)



SELECTION BATCH

CALCULATION & SIMPLIFICATION SHEET - 1

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[A] 1.6

[B] 1.9

[C] 1.8

[D] 1.7

236. Simplify the following/ निम्नलिखित को सरल कीजिए

$$12 - [2.06 + \{2.57 + (9.91 - 5.09 - 0.76)\}]?$$

(DP CONSTABLE 2023)

[A] 2.17

[B] 1.79

[C] 2.79

[D] 1.99

237. Simplify the following expression.

निम्नलिखित व्यंजक का मान ज्ञात कीजिए:

$$9\frac{1}{5} \div \left\{ \left(16\frac{1}{5} \div 12\frac{2}{3} - 9\frac{2}{3} \right) + 17\frac{1}{2} \text{ of } 3\frac{1}{21} \right\}$$

[A] $\frac{139}{881}$

[B] $\frac{137}{881}$

[C] $\frac{140}{881}$

[D] $\frac{138}{881}$

238. The value of $\frac{96 \div 16 \text{ of } 2 - 128 \times 2 \div 32 + 15 \text{ of } 4}{\frac{5}{6} \text{ of } \frac{2}{3} \left(\frac{1}{3} - \frac{1}{4} - \frac{1}{6} \right)}$ is"

$\frac{96 \div 16 \text{ of } 2 - 128 \times 2 \div 32 + 15 \text{ of } 4}{\frac{5}{6} \text{ of } \frac{2}{3} \left(\frac{1}{3} - \frac{1}{4} - \frac{1}{6} \right)}$ का मान क्या होगा?

[A] $\frac{55}{36}$

[B] 216

[C] $-\frac{5}{36}$

[D] 396

239. Solve the following/ निम्नलिखित को हल कीजिए।

$$\frac{24 \div \frac{3}{8} \text{ of } (8 + 2 \times 7 - 3) + \left[\frac{2}{11} \div \frac{4}{55} \div \left(\frac{5}{8} + \frac{6}{16} \right) \right]}{32 \div 15 - 7 + 75 \div (6 + 15 \div 3 + 4)}$$

[A] 23/27

[B] 9/2

[C] 11/18

[D] 15/19

240. Let $x = (0.\overline{47} \div 0.5\overline{2}) \div 2.2\overline{72}$ & $y = 1\frac{3}{5} - 1\frac{2}{9} \text{ of } 3\frac{3}{11} \div 5\frac{1}{7} \text{ of } \frac{7}{9}$, what is the value of x/y ?

मान लीजिए $x = (0.\overline{47} \div 0.5\overline{2}) \div 2.2\overline{72}$ & $y = 1\frac{3}{5} - 1\frac{2}{9} \text{ of } 3\frac{3}{11} \div 5\frac{1}{7} \text{ of } \frac{7}{9}$ है, तो x/y का मान क्या है

(ICAR Technician 2022)

[A] 1/15

[B] 5/3

[C] 2/3

[D] 3/2