Aptitude

कालपरिचय

32	54	60	1
64	108	120	2
96	162	180	3
128	216	240	4
160	270	300	5
192	324	360	6
224	378	420	7
256	432	480	8
288	486	540	9
320	540	600	10
		61	
		122	
		187	
		244	
		303	
		366	
		427	
		488	
		549	
		610	

59	5	9	59
108	10	18	118
157	15	27	177
20	20	36	236
25	25	45	295
30	30	54	354
35	35	63	413
40	40	72	472
45	45	81	531
50	50	90	590

I should know tables from 1 to 20

H.W 87 89 68 92

10

0

$72 \times 50 = 3600$

$32 \times 12.5 = 32 \times \frac{100}{8} =$

$$\begin{array}{r} 46 \\ \times 46 \\ \hline 276 \\ 1846 \\ \hline 2116 \end{array}$$

$46^2 =$. 6

* Squares *

13 = 169	21 = 441
14 = 196	22 = 484
15 = 225	23 = 529
16 = 256	24 = 576
17 = 289	25 = 625
18 = 324	26 =
19 = 361	
20 = 400	

* Base 50

- step 1]: Get the difference and square it
- step 2]: Substract the same difference from 25.

- $45^2 = 2025$ $(50-5)^2$ 2025
- $44^2 = 1936$

$$\begin{array}{r} 25 \\ -5 \\ \hline 20 \end{array}$$

43^2	42	41
1849	1764	1681

- $47^2 = 2209$
  ↳ if square is single digit 0 add.

• 48	• 49	• 39^2	• 38^2
2304	2401	↓ 1521	↓ 1444

37 =

• 36 = 1296 ↑ 50 less (substract)

• 54^2 = 2916 ↓ 50 more (add)

• 61^2 = 3721

62^2 = 3804 [61^2 = 3721]

63 = 3969

64 = 4096

104 = ~~5416~~ $(100+4)^2$

= 10000 + 400 + 16

= 10816

* Base 100 :-

Step 1] : Get the difference & square.

Step 2] : Add the difference to the same number.

111^2 = 12321 (1)

112 = 12544 (1)

113 = 12769 98^2 = 9236

114 = 12996.

91 = 8281 $89^2 = 7921$
92 = 8464 $88^2 = 7744$
93 = 8649 $87^2 = 7569$ (1)
94 = 8836 $86^2 = 7396$ (1)
95 = 9025
96 = 9216
97 = 9409
98 = 9604

Note:- 7744 is only is only four digit perfect square of the type xxyy.

- How many four digit perfect squares have first two digit and have the last two digit same.

- 87 = 7569 (1)
- 86 = 7396 (1)

- $204^2 = 41616$

* Base 200

Step1) Get the difference & square it.

Step2) Add the difference to the same number & then multiply by 2.

$207^2 = 42849$ $\left[\begin{array}{r} 214 \\ \times\ 2 \\ \hline 428 \end{array}\right]$

$209^2 = 43681$
$205^2 = 42025$
$206^2 = 42436$
$207^2 =$

$211 = \cancel{43421}$ (1)
44521
$212 = 44944$ (1)

$213 = 45369$ (1)
$214 = 255.96$ (1)

Day-2 — 03/09/2025

1. 111
222
333
} Three numbers comes under the table of 37

68 90 92
136 180 184
270 276
360 368
450 4
540
630
720
810
900

2. 212 } 44944
Perfect square

$196^2 = 38416$
-4
192
$\times 2$

380025
194
195^2
$\times$
37636.

196 = 38416

-4

192

×2

195 → 38024

-5

190

×2

194 = 37636

-6

188

×2

306 → 62436 → 93636

308² → 94864

312 = 97344

312

+12

295² → 87025

290

×3

860

34

67

81

3

6561

118

215

192

27689 → 44425 → 36864

2.

332

→ 99856

315 | 316 | 154

→ ~~66425~~

99

2.

~~100~~

~~→ 66925~~

~~99~~

~~2~~

~~66856~~

~~→ 1002256~~

255

~~35~~

$154^2 = 23716$

$1.50 \Rightarrow \frac{3}{2} \times 158$ (79)

$255^2 = 65025$

$\frac{5}{2} \times 260$ (130)

* मोजीरवाले नंबर :-

$255^2 = 65025$ → (25×26)

5 → 25

15 → 225

25 → 625

35 → 1225

(25 × 26)

$n \times n+1$

$n(n+1) = n^2 + n$

$= (25)^2 + 25$

$= 625 + 25$

$= 65025$

~~12~~

~~2~~

* Pattern:-

$\sqrt{12345432 1}$

$\Downarrow$

1	1	11111
11	121	
111	12321	
1111	1234321	

* H.W

Find the square of 10 time 1 1111111111

* Square foot:-

2	7056
2	3528
2	1764
2	882
21	441
21	27
	0

$\boxed{34}$

2	5184
2	2592
2	1296
2	648
18	324
18	18
	0

$\boxed{72}$

$\boxed{\text{Wrong } \cancel{\text{Ans}}}$

~~25 8~~
~~6~~

{Write Option finding}

The last digit of a perfect square can never be 2, 3, 7, 8 and it always 0, 1, 4, 5, 6, 9

Q. Which of the following numbers could be a perfect square

→ (2, 3, 7, 8) (0, 1, 4, 5, 6, 9)

(A) 99998 (B) 97667
(C) 93132 (D) 98596.

Q. Which of the following numbers could be perfect square.

a) 49186. b) 47766
c) 43126 d) 46656

13957

* trick -

If the last digit of a square is 6 then second last digit will always be an odd number.

* Trick :- If last digit of square is 5 then second last digit is 2.

5555

* Rule :- If the last digit of square is one the second digit is always even. 2, 4, 6, 8, 1, 0

The same fact is true for 4 4 9.

The number of zero's (0) at the end of square is always even and the non-zero part of that number should be a perfect square

* Trick for square root :-

51884 6889 4761

49 64 64 81 36 49

70 80 80 90 60 70

72/78 83/81 61 69

~~9 → 81~~

4 → 2 & 8

5329

49 64

70 80

73/77

4624

49 36

70 60

62/68

68

7921

64 81

8 9

80 90

6561

64 81

80 90

81

9801

100

99

41209

200

400

41209

400 441

200 210

203/207

2304

152

14641

144 169

120 130

121/129

* For square:- [decimal value]

Square the no. of digit for a decimal point is always even.

11449

100 121

10 11

10/11

1.07

* For root value:

$\sqrt{0.9}$ — x

$\sqrt{0.09}$ — 0.3

$\sqrt{0.009}$ — x

$\sqrt{0.0009}$ — 0.03

$\sqrt{1471369}$

* If the last two digits of a square are 69 then the square root is number of the type $\boxed{50x \pm 13}$

$\sqrt{1471369}$

1273
1223
1233
1243

Q. The sum of the squares of two consecutive natural number

→ $x^2 + (x+1)^2 = 313$

Q. $\sqrt{3018 + \sqrt{36} - \sqrt{16}}$

42 55

44.

Q. Find the smallest number which must be added to 6072 to make it perfect

a) 6 b) 10 c) 12 d) 16

Q. Find the smallest no. which must be added to the number 45823 to make a perfect square.

→ a) 97 b) 99 c) 101 d) 103

Q. $3a = 4b = 6c$
$a + b + c = 27\sqrt{29}$

a) $3\sqrt{29}$ b) 21

$\sqrt{a^2 + b^2 + c^2}$

c) 87 d) Not

$a = \frac{3}{4} b$ $b = \frac{3}{2} c$

$a = 2c$

$\frac{3}{4} b$

Q. Find the no. of squares betn 1000 & 9999.

68

31 100

1000 and 9999

Smallest 3 digit perfect square → 1000

Greatest 3 digit perfect square → 961

Smallest 4 digit perfect square → 32^2

Greates 4 digit perfect square → 99^2 → 9801.

Smallest 5 digit perfect square → 10000

Greatest 5 digit perfect square → $316^2 = 99856$

Greatest 6 digit No → $317^2 = 100489$

Q. $\sqrt{0.9}$ up to

→ 0.9025 0.95^2

6.

2	28812
2	14406
3	7203
7	2401
7	343
7	49
7	7
	1

Q. If $\sqrt{14.44} + \sqrt{9+x^2} = 8.8$ then find value of x.

a) 5 ~~b) 4~~ c) 7 d) 2

→

$14.44 + 9 + x^2 = \cancel{8.8}\ 8.8 \times 8.8$

$\sqrt{9604}$ → 98

88^{16} 36

Exception :-

1296

9 → 36

16 → 40

→ 34 / 36

36 $35^2 = 1225$ → 1296

* Puzzles *

Q. 10 Rs. 1 Rs → 3 each choclates

grappers → 1 choclates

Maximum no wrappers

→

9 Rs → 27 wrapper + 9 choc. 45 choclates

27 + 9 =

6 Rs 18 wrapers 6 wrapper 2 wrapper.

18 + 6 + 2 = 26

4 Rs. 12 wrapes 4 wrapper 1 wrappers

12 + 4 + 1 →

Q.2) Yash → all answers 1 vacancy standing.

Rish → chennai

→ His Birthday.

Q.3) 1 / 2 / 3 Switch Bulb

Q.4) A man has horse on Sunday come to Pune He stays for 8 days in Pune then One Sunday he lives pune.

→ Direct

x kg. in y kg.

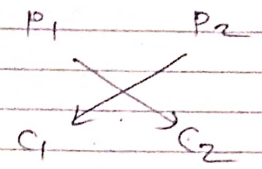
Mumbai → New york

10 per eg.

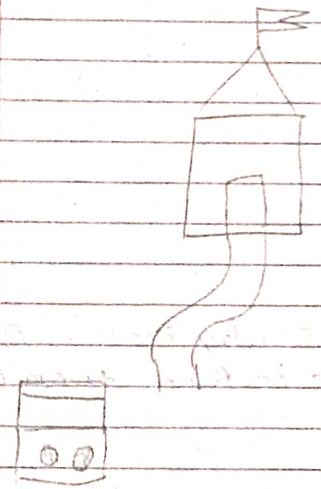
what is weight of Airplane

$y < x$

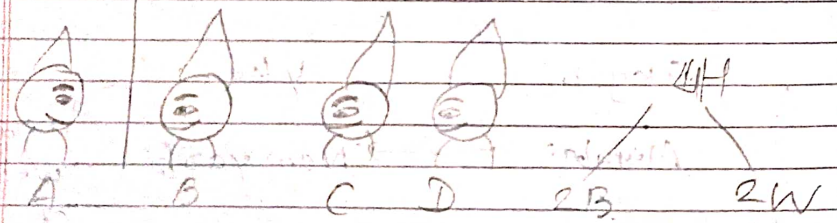
5) King on dead condition camel race of Brother for King position.



6)

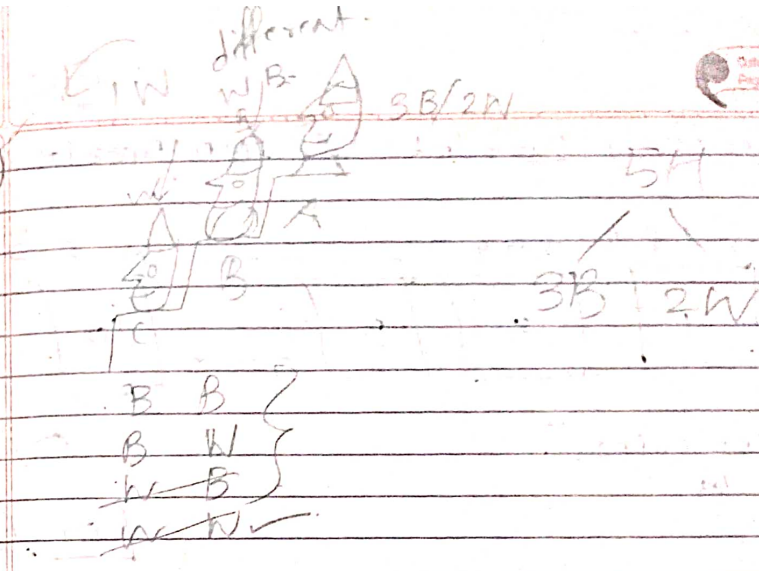


7)



1min

8)



*Cubes:-

1 - 1
2 - 8
3 - 27
4 - 64
5 - 125
6 - 216
7 - 343
8 - 512
9 - 729
10 - 1000

3 7
27 343

2 8
8 512

549 550 549 548 550

* Necessary Puzzle :- (*) Imp Puzzle (17 years)

$1 + 2 + 3 + 4 \; - - - - - \; 10 = 55 \times 10g$

$\boxed{1}$ $\boxed{2}$ $\boxed{3}$ - - - $\boxed{10}$

50

100 coins

10g

$\boxed{5500\,g - x}$

548g, 548g

* Cubes :-

$$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

1 3 3 1

a b

a^3 a^2b ab^2 b^3

1 1×3 1×3^2 3^3 27

1 3 9 27

1 9 27 27

$\boxed{2197}$

15³

1 5 25 125

1 15 75 125

$\boxed{3375}$

1 1 12 14

1 1 1 1 1 2 4 8

1 3 3 1 1 6 12 8

1728

19

1 9 81 729

1 27 243 729

16 17

1 6 36 216 1 7 49 243

1 18 108 216 1 21 147 243

4096 4913

$\boxed{6859}$

24 3

8 16 32 64

13824

8 48 96 64

21

22

23

8 8 8 8 8 12 54 27

24 24

36 162

10648

25

8 20 50 125

60 150

15625

13247

1) 35

35

27 45 75 125

135 225

42875

54
3
162

2) 44

64 64 64 64

192 192

85184

54
3
162

3) 52

125 50 20 8

150 60

140608

4) 61

36 6 1

216

216 108 18 1

226981

*Cube Root:-

$\sqrt[3]{226981}$

216 343

60 70

61

③ for 6 No.
973360

② for 5 no.

$3\overline{)973\,36}$

46

* Numbers :-

- Natural Numbers $\Rightarrow \{1 \ldots\ldots 20 \ldots\}$
- $W = \{0, 1, 2, 3 \ldots\}$ $x+2=1$
- Integer no set $= \{-2, -1, 0, 1, 2 \ldots\}$
- Rational number $= \left\{ \frac{p}{q} \,\middle|\, p, q \in I, q \neq 0 \right\} \Rightarrow Q$

"0" → one of the powerful rational number.

- Irrational → something which is not rational :-

$\sqrt{3}, \sqrt{6}, \pi, e \Rightarrow \bar{Q}$

- Real Numbers $= Q \cup \bar{Q}$

* Natural numbers :-

- even & odd:

0 is even number as it is divisible by 2.

- Prime numbers :

1, 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97

- A number having exactly two positive factors is prime no.
- A number having more than two positive factors is positive number

∴ 1 is neither prime nor composite.

∴ 2 is only even prime number.

There are 25 prime numbers from 1 – 100

Note: Other than 2 & 3 every prime number can be written as $6x-1 \,|\, 6x+1$

- The converse is not true :-

- Is 151 is prime ? } Yes.
  199 is prime ? }

Q. Find all the prime numbers between 100 & 200.

* Divisibility test [विभाज्यता]

- The last two digits should be divisible by 4 ⟶ 4

- The number should be divisible by 2 & 3 ⟶ 6

- The last 3 digits should be divible by 8 ⟶ 8

- The sum of digits should be divisible by 9 ⟶ 9

- The difference between two groups of alternate digits should be either 0 or multiple of 11. ⟶ 11

- 12 ⟶ The number should be divisible by 3 & 4.

- 15 ⟶ The no. ~~of~~ should be divisible by 3 & 5

- For 7 :- The difference between two alternate groups taking 3 digits at a time should be either 0 or multiple of 7.

550 500 006

556 ~~006~~ ~~562~~

A three digit no. abc is divisible by 7 if $(ab + 5c)/7$

574 22 100

77 — divisible.

- 11 ⟶ The no should be dividsible by 2 & 7

- 13 ⟶ The same test that was used for 7 but here the final difference should be divisible by 13.

210 184

26 ⟶ divisible by 13.

- 16 ⟶ last 4 digit divisible by 16.

- 3 ⟶ All digits of number should be divisible by 3
- abc is divisible by 13 if $(ab+4c)/13$ is divisible 13
- 17 ⟶ Abc is divisible by 17 if $(ab-5c)/17$ Ex. 153
- ~~ab~~ 19 ⟶ Abc is divisible by 19 if $(ab+2c)/19$ Ex. 551
- 720720 The smallest natural number which is divisible by 1st 16 natural numbers.

312312

~~000000~~

~~312312~~

~~064~~

~~031~~

$7\overline{)312312}$

312312

~~000000~~

720720 /7

⇓

102960 /11

⇓

9360 /13

⇓

720.

$1001 = 7 \times 11 \times 13$

224 225 3

330

330 3

513.

H.W.

Prove the test of 4, 8, & 11.

- Test creation of number.

① 96 ⟶ 6×6 56 ⟶ 7×8

9×12

9×4

72 ⟶

Q. A 7 digit no. 765432x is divisible by 18 find the value of x

a) 0

b) 3

c)

d) 9

27+x

Q. A 6 digit no. 12345x is divisible by 12 find x?

a) 0

b) 3

c) 6

d) 9

Q Least perfect square divisible by 21, 36, 66

✓ 2 1 3 4 4 4

✗ 2 1 4 3 4 4

✓ 2 1 4 4 3 4

✗ 2 3 1 4 4 4

21, 36, 66

3, 7, 4, 9, 6, 11

Small sample

2B — 1B

1R — 1R

1R

Puzzle

20 BL

13 Re

remove add

2 same → 1BL

2 Diff → 1 Re

1BL 1BL 1R

19BL	21B	19B
13Re	11Re	13R

BL Re

Last Ball color?

IMP

24/09/2025

101 103 107 109 113 127 131
137 139 149 151 157 163 167 173
179 181 191 193 197 199

There are 21 prime numbers betn 100 & 200

There are 16 prime numbers betn 200 & 800

CAT) How many numbers from 1 – 100 have exactly two factors.

→ 25 (prime no.)

) How many numbers from 101 to 200 have atleast 2 factors

→ 100

3) The total no. of students in a school is a prime number. Which of the following can be a ratio of girls & boys in the school ~~and~~

a) 59:60
b) 70:73
c) 80:81
d) 90:91

Series question

2 6 6 12 12 18 30 30

4, 6, 12, 18, 30, 42, 60, 72, 102, 108,

×3 17 29 41

116

Twin primes are consecutive prime no. ~~Twin prime numbers~~ as well as consecutive odd number.

1400-9

- Twin prime are prime number whose difference is 2.

- $abcd = 1000a + 100b + 10c + d$

$= 100(a + 9b + 11c + (-a + b - c + d))$

Q. 3rd $17 + x$

$7 \le 84 \times 9 \mid$

$(16 + x) = 19$

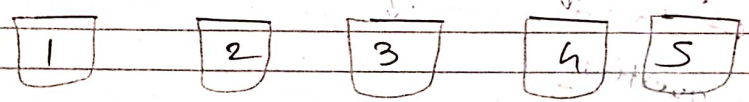
$(a-b)^2$

$(481 - 426)$

$(55)^2$

Puzzle

CDAC Bangalore



form a array to find mouse. Mouse

2 3 4

2 3 4

121
×21

Five IMP Formulas :-

1) $1 + 2 + 3 + \dots + n = \frac{n(n+1)}{2}$

→ Find $1 + 2 + 3 + \dots 20$.

$\frac{20(20+1)}{2} = 210$

2) $1^2 + 2^2 + 3^2 + \dots + n^2 = \frac{n(n+1)(2n+1)}{6}$

Ex. Find $1^2 + 2^2 + 3^2 \dots 10^2 = \frac{10(11)(21)}{6}$

$= 385.$

3) $1^3 + 2^3 + 3^3 + \dots n^3 = \left(\frac{n.(n+1)}{2}\right)^2$

Find $1^3 + 2^3 + 3^3 + \dots 10^3$

Q. Find $1 + 3 + 5 + 7 + 9 + \dots + 25$

Sum of 1st n odd number $= n^2$

Count number

where $n = \frac{\text{Last no} + 1}{2}$

$= 1 + \frac{(n+1)((n+1)+2)}{2}$

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

$= 1 + \frac{26 \times 28}{2}$

$=$

26
×14
364

2) $1+3+5+7+ \ldots 39$

$\boxed{20} \longrightarrow 400$

3) Sum of 1st n even number is $n(n+1)$ where $n = \frac{LN}{2}$ find $2+4+6+ \ldots 20$

$\boxed{110}$

4) $21+22+23+ \ldots +40$

$[1+ \ldots 21+22 \ldots 40] - [1+ \ldots +20]$

$\frac{40(41)}{2} - \frac{20(21)}{2}$

5) $11+13+15+ \ldots +29$

$[1+ \ldots 11+13+ \ldots 29] - [1+ \ldots 9]$

$15^2 - 5^2 =$

6) $2^2 + 4^2 + 6^2 + \ldots + 20^2$

$2^2(1^2+2^2+3 \ldots +10^2)$

$4 \times \frac{10(11)(21)}{6}$

$= 4 \times 385$

$= 1540$

Q. In a party of 25 peoples. Each person shakes hand with all the other persons exactly once. Find the total no. of handshakes.

$\frac{25(25+1)}{2} = \frac{\cancel{26}^{13} \times 25}{\cancel{2}} = 325$

$\frac{\cancel{24}^{12}(25+1)}{\cancel{2}} = 12 \times 25 = 300$

Handshake with two

No. of handshakes ~~of~~ in party of n peoples

$\boxed{\frac{n(n-1)}{2}}$

In ICC world cup 10 teams have participated. Each team had to play with all the other teams exactly once. Find the total no. of basic matches.

$\frac{10(9)}{2} = \frac{n(n-1)}{2}$

90% sports follow it.

* Round Robin Formats :-

Q. In match 64 will be knockout in tournament. find the total no. of matches to be played to decide the winner.

$64 \Rightarrow 32 + 16 + 8 + 4 + 2 + 1$

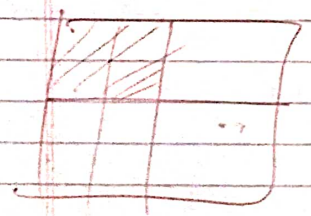
$\Downarrow$

$\boxed{63}$

* For n players $\boxed{(n-1)}$ knockout matches

Q. Count the no. of squares and rectangles on a chess board.

Chess



$9+4+1$

$$Sq = \frac{n(n+1)(2n+1)}{6}$$

$$= \frac{\overset{4}{\cancel{8}}(9)(17)}{\cancel{6}\,\cancel{2}}$$

$$= 12 \times 17$$

$$= 204$$

Choice 3rd

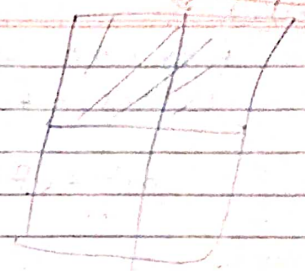
for rectangles

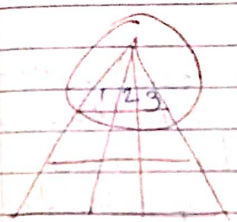
$$Re = \left[\frac{n(n+1)}{2}\right]^2$$

$$= \left(\frac{8(9)}{2}\right)^2$$

$$= (36)^2$$

$$= 1296$$





$3+2+1 = 6$

$\times 3 \Rightarrow 18$

Q1 Let x & y be positive integers

$x + y = 20$

Max.

Min.

$\rightarrow xy$

$\rightarrow$ The product of xy is maximize at the center and minimized at the end points

10×10

Max

xy

19×1

Min

IMP

2. $x+y=20$ find the maximum & minimum values of

x^2+y^2

2^2+4^2

$4+16$

x^n+y^n is minimum at the centre and maximum at the end points.

IMP

Salman and Jaki marry each other and have x children of their own. Salman already has y children from his ~~y children~~ first wife & jakki has z children from her husband. (total children)

now $x+y+z=9$ $(x \neq y \neq z)$

Find the maximum no. of fights that can take place among the children if

For a fight we need exactly 2 children and no two children of the same parents fight.

a. 22

b. 26

c. 27

d. 31

~~Alternate~~

2 3 4

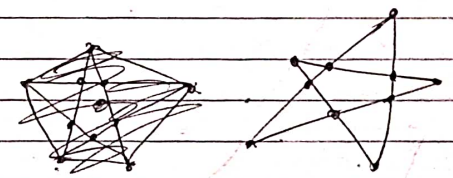
$x \times y = 9$ $y \times z$ $z \times x$

$x \times y + y \times z + z \times x =$

$6 + 12 + 8 = 26$

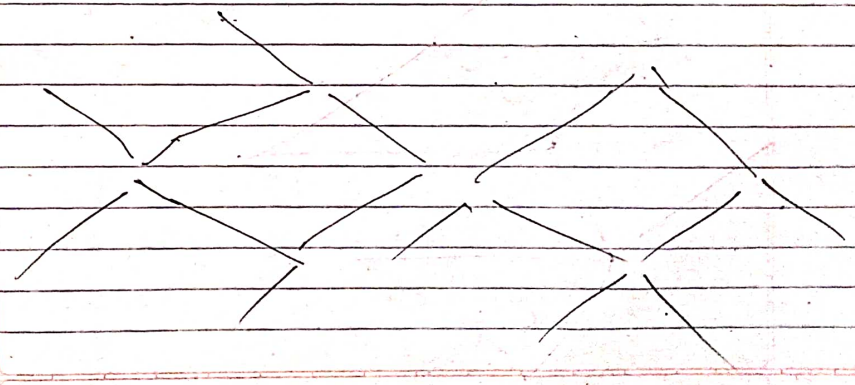
Puzzle

(1) 10 tennis balls (you have to arrange) into 5 lines segment ~~such that~~ each line segment comprises to 4 balls.



change two rows

(2)



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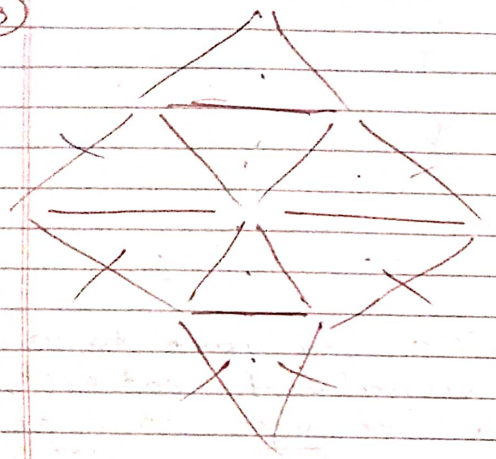
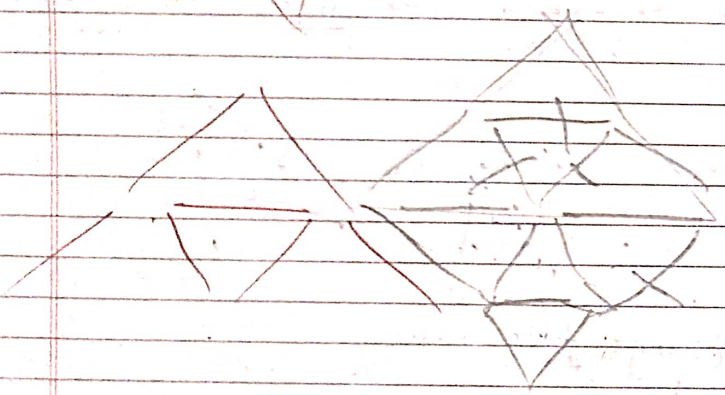
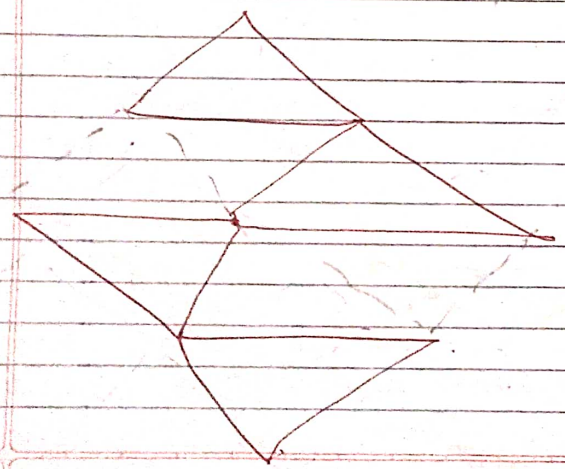
(3)



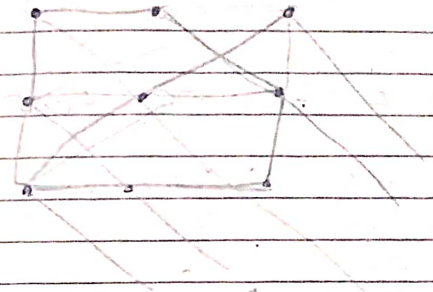
combination of 4 triables & become.



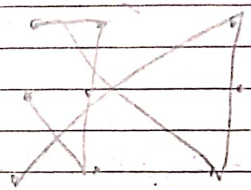


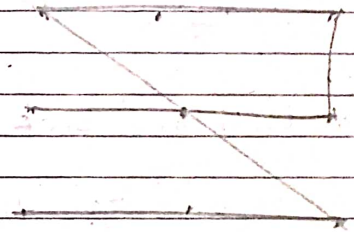
Mohan Bhaiya

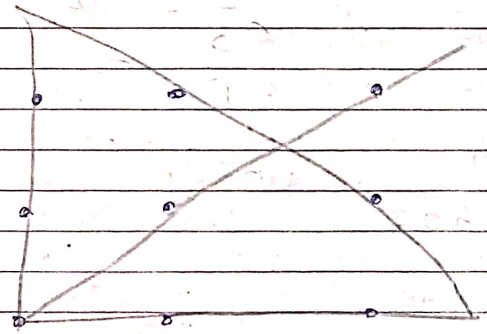
(4)



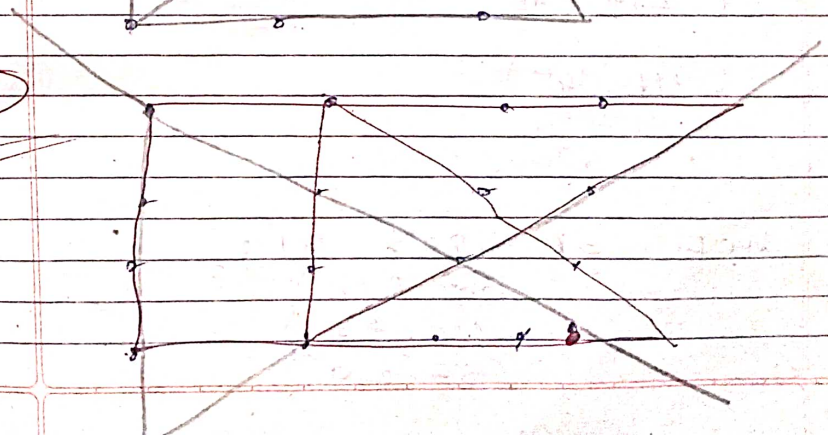
A line segment straighling & you can lift pen.







(5)



॥ॐ नमः शम्भवाय॥

* HCF & LCM :-

1. Find the HCF of 56 & 84.

~~56~~ 2	56	84
2	28,	42
7	14,	21

28

28

2. Find the HCF of 72, 90, 126

2	72	90	126
3	36	45	63
3	12	15	21
	4	1	

18

3. (259, 407) HCF?

(259, 148) (74, 37)

(111, 148) (37, 37)

(111, 37)

4. HCF of 203 319

(203, 116)

(116, 87)

(87, 29)

29

5. Find the HCF 72, 125

72, 53

53, 19

If nothing is in common then the HCF is 1 & the numbers are said to be "co-prime".

∴ 72, 25 coprime.

* Rule No 1 :-

Prime numbers are always co-prime.

The converse is not true.

* Rule No 2 :-

Consecutive Natural no. are always coprime.

* Rule No 3 :-

Co-secutive odd numbers are always co-prime.

89, 87, 85 ⟶ 1

Rule 4 The HCF of consecutive even numbers is always 2.

Q.1) Find the "biggest" number such that both 42 and 98 are divisible by that number

(14)

2) Find the "highest" number such that if 45 68 and 115 are divided by that number then we get reminder as 1, 2, 5.

→ 40 | 45 68 115

In an HCF problem first adjust and then find the HCF

2 | 44 66 110 (22)

3) Find the "greatest" number such that if 53, 101 and 173 are divided by that number then we get the same reminder in each case

53 101 173

~~54~~ ~~102~~ ~~174~~

48 72

(24)

4) Find the HCF of 111.... (35t)

111... (60 times)

→ (11111)

5) Find the HCF of

333... (60 times)

333 ... (100 times)

→ 333 --- (20 times)

6) Find the HCF of $3^{45}-1$

3^{120} 1

Same ~~deal~~

$3^{\boxed{15}}-1$

7) Find the HCF of

→ $7^{20}-1$, $7^{20}+1$

Ev , Ev+2

8) Find the HCF of $8^{25}-1$ and $8^{25}+1$

odd odd+2

→

(1)

9) The total no. of admissions for mech, ENTC & CS branch is 48, 84, 72 respectively. The principle wants to arrange this students into separate classroom so that each class contains n equal no. of students of the same branch only. Find the minimum no. of classrooms required.

a) 12 b) 15 c) 17 d) 18

11

6. 7 6.

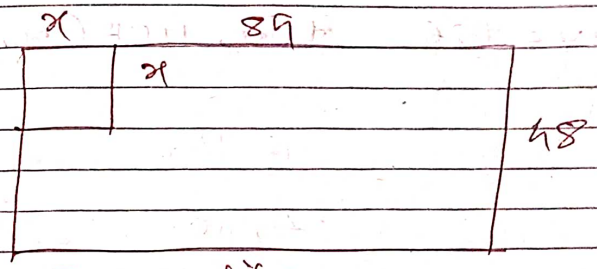
Me ET CS

48 + 84 + 72

12

17 classrooms required.

10



Square tiles

A rectan. floor with length 84 & breath 48 units is tobe covered with squared shaped types only. find the minimum no. of equally sized tiles that can be used

→ Area of rectangle = $\frac{84 \times 48}{12 \times 12}$

a) 12

b) 28

c) 36

d) 48

28

11) How many pairs of positive integers x & y exists such that

$x+y = 156$, ~~H(x,~~ HCF$(x,y)=13$

78+78

a) 2
b) 4
c) 5
d) 6

91 – 65 13, 143 ~~52, 104~~

4 – 52 ~~26, 130~~ 65, 91

39

26 ~~39, 117~~ ~~78, 78~~

13

12) Let $x = 13a$ & $y = 13b$ and HCF$(a,b) = 1$

5×1 — 5
5×2 — 5
5×3 — 5
5×4

10

$x + y = 156$

$13a + 13b = 156$

$a + b = \frac{156}{13}$

$a + b = 12$

∴ 1 + 11 = 12
5 + 7 = 12 } Needs to be co-prime.

13, 14

How many pairs of +ive integers exist so that $x+y = 80$ & HCF of $x, y = 5$

a) 2 b) 4 c) 5 d) 6

$x + y = 80$
$5a + 5b = 80$
$a + b = 16$

$x = 5a$
$y = 5b$
$H(a,b) = 5$
$a + b = 16$
1, 15 7, 9
3, 13
5, 11

14) The product of two numbers is 4107. If the HCF of these no. is 37 then the greater number is

$x \times y = 4107$

$x = 37a$ $y = 37b$, $H(a,b) = 1$

$37a \times 37b = 4107$

$a \times b = 3$

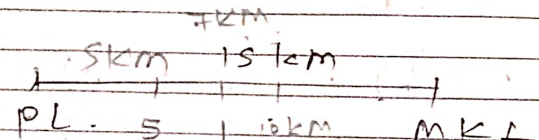
1 3

a) 101
b) 107 } no is multiple
c) 111
d) 185 } 5th multiple

4107 is not 5th option

Max. no. of banana to market Camel can stay & not come back is ok.

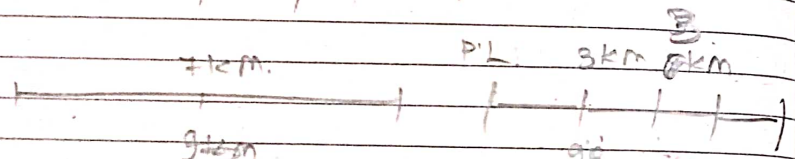
45 B.

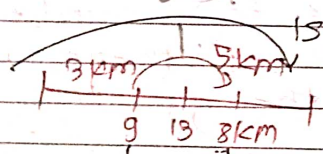


Camel
15B
1 km ⟷ 1 B

10
20

2 3





9B 9S 9S

12B 5

30 3 3

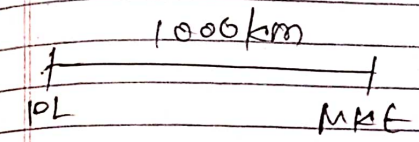
9
+9
+12
30

5
10
15

8 Banana's

$\frac{8}{45} \times 3000$

* For Cidac RND Puzzle.



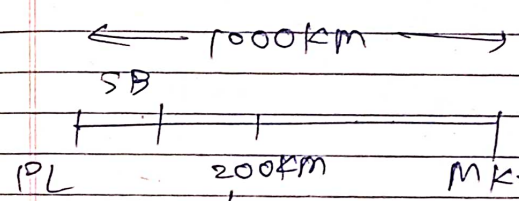
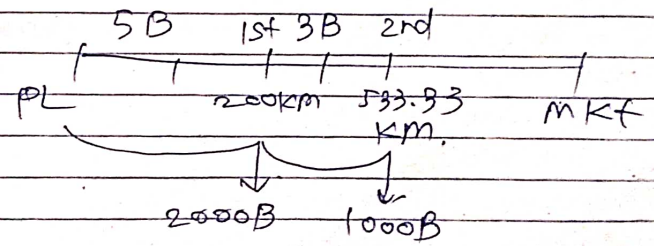
533.33

3000B
Camel
1000B

45
15 km
8 Ban

$\frac{8}{45} \times 3000$

1 km ⟷ 1 B



Camel
1000B
1 km ⟷ 1B