Problem Solving - 2 - Iterative Statements, Loops

Wednesday, 27 July 2022 8:09 PM

· Split String

Q I/P 321

↳ 3 + 2 + 1 ⇒ 6 O/P

logic

Q how to fetch ind. digit?

I/P

sum = 0 X 3 6

sum = sum + rem.

= 0 + 1

= 1

= 1 + 2

= 3

= 3 + 3

= 6

321 ⇒ 1

321 % 10 } 1

321 / 10 ⇒ 32.1 ⇒ 32

32 % 10 ⇒ 2

32 / 10 ⇒ 3

3 % 10 ⇒ 3

3 / 10 ⇒ 0

Stopping Condition

32 % 10 ⇒ 2

Q Armstrong no.

153 ⇒ $1^3 + 5^3 + 3^3$ ⇒ 1 + 125 + 27

= 153

1634 ⇒ 1^4 6^4 3^4 4^4

= 1 + 1296 + 81 + 256

= 1634

Logic => 1. fetch ind. digit }

2. no. of digits }

Pattern Question

	1	2	3	4	5
1	*				
2	*	*			
3	*	*	*		
4	*	*	*	*	
5	*	*	*	*	*

9th

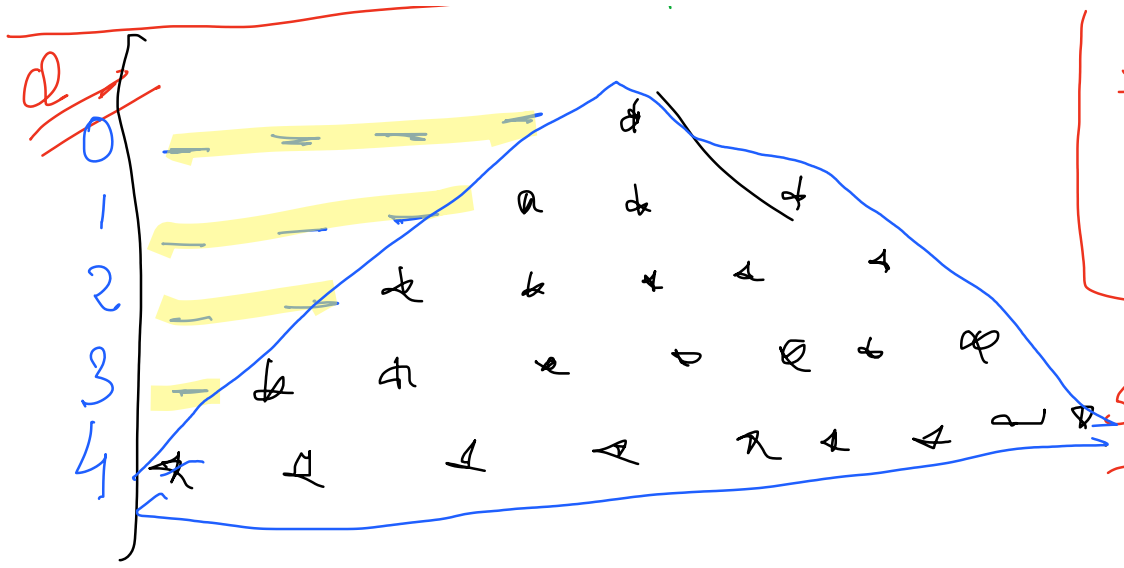
Print

<=

row = 3 }

col = 3 }

while col <= row } }



logic

rows & cols.

n=4

Row no.	Spaces
0	4
1	3
2	2
3	1
4	0

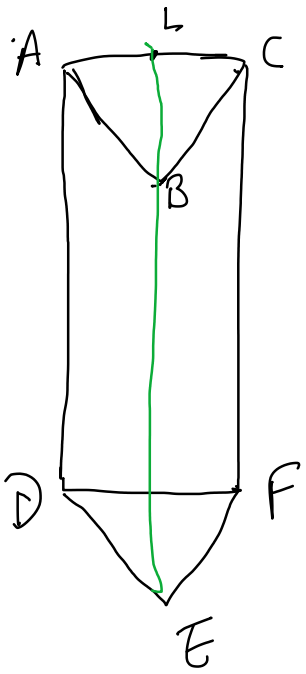
Row no.	Stars
0	1
1	3
2	5
3	7
4	9

Row + Space = n

Space = n - rows

2(Row no.) + 1 = S

6-10



area of $\Delta ABC = \frac{1}{2}$ base * height

$= \frac{1}{2} AC * LB$

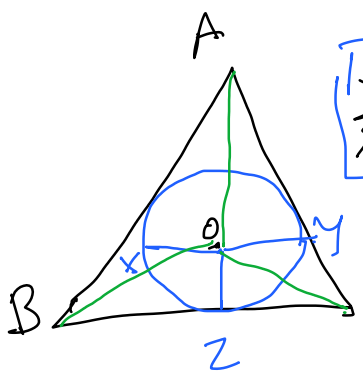
Height of Prism = BE

Volume = base * height

$= \frac{1}{2}(AC * LB) * BE$

Q Given volume of prism
Perimeter of Δ base prism
radius of inner circle
} asked calc. height of prism.

height = $\frac{\text{volume}}{\text{base}} = \frac{\text{volume}}{\text{area of } \Delta ABC}$



Inner radius = OX = OY = OZ

Perimeter = AB + BC + CA

area of Δ ABC = area of Δ AOB + area of Δ AOC + area of Δ BOC

= area of Δ BOC

$= \frac{1}{2} AB * OX +$

$\frac{1}{2} AC * OY +$

$\frac{1}{2} BC * OZ$

$= \frac{1}{2} * r (AB + AC + BC)$

$= \frac{1}{2} * r * \text{Perimeter}$

Area of ΔABC $= \frac{1}{2} *$ inner radius $*$ Perimeter }

Height = Volume ✓ / area ✓.

Q Bob } =>

bricks => 24 * 12 * 8 cm } m (×100, ×100, ×100)

Dimensions of wall => L = 24 m

H = 8 m

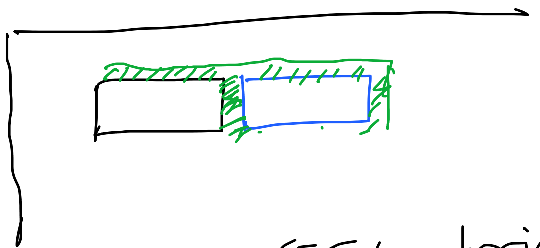
T = 0.6 m

5 mins.

(10:31)

How many bricks?

no. of bricks = $\frac{\text{volume of wall} \times (100)^3 \times 0.85}{\text{Volume of bricks}}$ }



100%

85% bricks

15% other materia

Lcm :-

2	12	16	}
2	6	8	
	3	4	

5 mins

2 * 2 * 3 * 4 => 48

2	2	4	}
	1	2	

=> 2 * 2 => 4

① Lcm >= max(a, b)

② a % x == 0 } && } b % x == 0 }

I/P 7,3,2 → logic → O/P a,b,6

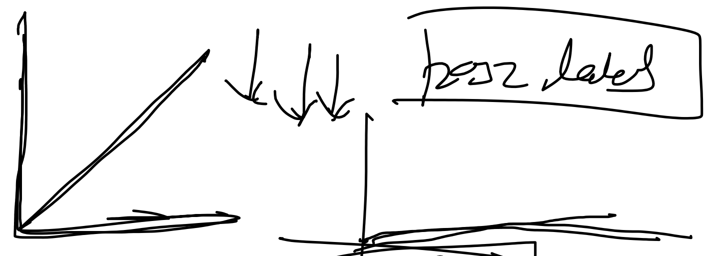
no. of if ↓ ↓ } readability, good code

50 times

Sachin

4AM, 5AM

1000 balls



2022, dates

×2

×2

1000 CR

10 CR

100 CR

11 AM

Grow

M

TW

F

Sat

Sun.

learn

2 months