P 4)

Step 1: Take Input from user of a 4 digit integer.

Step 2: If digits are greater or less than 4, repeat step 1.

Step 3: If integer is 4 digit then, Take input of last digit from user

Step 4: Do the following calculation
=> integer %.10
=> integer /10
. If integer%.10 = last digit then, count ++.

Step 5: Repeat Step 4 until integer =0.

Step 6: Print count.

Step 7: End.

P 1) Step 1: Take Input from the user of $(x_1, y_1)$, $(x_2, y_2)$, $(x_3, y_3)$, $(x_4, y_4)$

Step 2: Find the slope of all four co-ordinates using formula: $m = \frac{x_2 - x_1}{y_2 - y_1}$.

Step 3: If any 3 ~~points~~ of the 4 points are same, then the points will be colinear.

Step 4: Print "All Points ~~lines~~ fall on the same line" and are colinear"

Step 5: If lines are not colinear then "Points are not collinear".

Step 5: End.

P9, Step 1: Take Input from user of the last two digits of his/her roll number -

Step 2: If the integer is greater than 99 or less than 10 then repeat step 1.

Step 3: Do the following calculations:

=> integer % 2

=> integer / 2

• Repeat until quotient is 0.

Step 4: Print the Binary-

Step 5: Convert Binary to decimal using following calculation

• If Binary is 101

=> $(1 \times 2^2) + (0 \times 2^1) + (1 \times 2^0)$.

Step 6: Print Binary to Decimal conversion

Step 7: End.