PROGRAM 34 : DATE : 16/04/2024

PROGRAM 35 : DATE : 16/04/2024

10 Rem " TO FIND THE LINE OF BEST FIT "

20 Cls

30 Print " THE LINE OF BEST FIT "

40 Dim X(12), Y(12)

50 Let N = 5

60 For I = 1 To N

70 Read X(1), Y(1)

80 Let SX = SX + X(1)

90 Let SY = SY + Y(1)

100 Let SXX = SXX + (X(1)) ^ 2

110 Let SYY = SYY + (Y(1)) ^ 2

120 Let SXY = SXY + X(1) \* Y(1)

130 Next I

140 Let D = N \* SXX - (SX) ^ 2

150 Let M = (N \* SXY - SX \* SY) / D

160 Let C = (SXX \* SY - SX \* SXY) / D

170 Print " SLOPE OF LINE (M)"; M

180 Print " INTERCEPT (C)"; C

190 Let VX = (SXX / N) - (SX / N) ^ 2

200 Let VY = (SYY / N) - (SY / N) ^ 2

210 Print "VARIANCE OF X,VX"; VX

220 Print " VARIANCE OF Y ,VY"; VY

230 Let SDX = Sqr(VX)

240 Let SDY = Sqr(VY)

250 Let R = M \* (SDX / SDY)

260 Print " STANDARD DEVIATION OF X , SDX"; SDX

270 Print " STANDARD DEVIATION OF X , SDY"; SDY

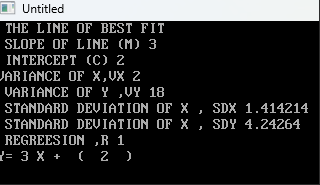
280 Print " REGREESION ,R"; R

290 Print "Y="; M; "X + "; " ( "; C; " ) "

300 Data 1,5,2,8,3,11,4,14,5,17

310 End

OUTPUT :



PROGRAM 15

10 Rem "TO FIND PRODUCT OF FIRST N NATURAL NUMBERS"

20 Input "ENTER THE VALUE OF N TILL WHICH THE PRODUCT IS TO BE FOUND OUT"; N

30 I = 1

40 P = 1

50 I = I + 1

60 P = P \* I

70 If I < N Then GoTo 50 Else GoTo 80

80 Print "THE PRODUCT OF FIRST"; N; "NATURAL NUMBERS IS"; P

90 End

PROGRAM 16

10 Rem "TO FIND THE SUM AND PRODUCT OF FIRST N NATURAL NUMBERS"

20 Input "ENTER THE VALUE OF N TILL WHICH THE SUM AND PRODUCT IS TO BE FOUND"; N

30 I = 1: S = 1: P = 1

35 I = I + 1

40 S = S + I: P = P \* I

50 If I < N Then GoTo 35 Else GoTo 60

60 Print "THE SUM AND PRODUCT OF FIRST"; N; "NATURAL NUMBERS IS"; S; "AND"; P; "RESPECTIVELY"

70 End

PROGRAM 17

10 Rem "TO FIND THE SUM OF SERIES 1+(X/1)+((X^2)/(2\*1))+((X^3)/(3\*2\*))+...+((X^N)/(N\*(N-1)\*...\*2\*1)"

20 Input "ENTER THE VALUE OF X AND N"; X, N

30 I = 1: S = 1: P = 1

50 P = P \* I: S = S + ((X ^ I) / P)

60 I = I + 1

70 If I > N Then GoTo 80 Else GoTo 50

80 Print "THE SUM OF THE SERIES IS"; S

90 End

Program 18

10 Rem "TO FIND SUM OF FIRST N NATURAL NUMBERS"

20 Input "ENTER THE VALUE OF N TILL WHICH THE SUM IS TO BE FOUND"; N

25 S = 0

30 For I = 1 To N

40 S = S + I

50 Next I

60 Print "THE SUM OF FIRST"; N; "NATURAL NUMBERS IS"; S

70 End

PROGRAM 19

10 Rem "TO DISPLAY FIBONACCI SERIES UPTO N TERMS"

20 Input "ENTER THE VALUE OF N"; N

30 F1 = 1: F2 = 2

40 For I = 1 To N

50 F = F1 + F2

60 Print F

70 F1 = F2: F2 = F

80 Next I

90 End

PROGRAM 20

10 Rem "TO READ AND PRINT A MATRIX A"

20 Dim A(3, 3)

30 Print "THE MATRIX A IS"

40 For I = 1 To 3

50 For J = 1 To 3

60 Read A(I, J)

70 Print A(I, J);

80 Next J

90 Print

100 Next I

110 Data 2,4,6,9,12,15,30,45,60

120 End

PROGRAM 21

10 Rem "TO READ AND PRINT A MATRIX AND IT'S TRANSPOSE"

15 Input M, N

20 Dim A(3, 3), T(3, 3)

30 Print "THE MATRIX A IS"

40 For I = 1 To M

50 For J = 1 To N

60 Read A(I, J)

70 Print A(I, J);

80 Next J

90 Print

100 Next I

110 Data 2,4,6,9,12,15,30,45,60

120 Print: Print

130 Print "TRANASPOSE OF MATRIX A IS T"

140 For I = 1 To N

150 For J = 1 To M

160 T(I, J) = A(J, I)

170 Print T(I, J);

180 Next J

190 Print

200 Next I

210 End

PROGRAM 22

10 Rem "TO READ AND PRINT A MATRIX A"

15 Input M, N

20 Dim A(3, 3), B(3, 3), C(3, 3)

30 Print "THE MATRIX A IS"

40 For I = 1 To M

50 For J = 1 To N

60 Read A(I, J)

70 Print A(I, J);

80 Next J

90 Print

100 Next I

110 Data 3,-1,0,4,7,2,5,0,5

120 Print: Print

130 Rem "TO READ AND PRINT A MATRIX B"

150 Print "THE MATRIX B IS"

160 For I = 1 To M

170 For J = 1 To N

180 Read B(I, J)

190 Print B(I, J);

200 Next J

210 Print

220 Next I

230 Data 9,1,-1,7,2,8,1,20,15

240 Print: Print

250 Print "THE RESULTANT MATRIX C IS"

260 For I = 1 To M

270 For J = 1 To N

280 C(I, J) = A(I, J) + B(I, J)

290 Print C(I, J);

300 Next J

310 Print

320 Next I

330 End

PROGRAM 23

10 Rem "TO READ AND PRINT A MATRIX A"

15 Input M, N

20 Dim A(3, 3), B(3, 3), C(3, 3)

30 Print "THE MATRIX A IS"

40 For I = 1 To M

50 For J = 1 To N

60 Read A(I, J)

70 Print A(I, J);

80 Next J

90 Print

100 Next I

110 Data 3,-1,0,4,7,2,5,0,5

120 Print: Print

130 Rem "TO READ AND PRINT A MATRIX B"

150 Print "THE MATRIX B IS"

160 For I = 1 To M

170 For J = 1 To N

180 Read B(I, J)

190 Print B(I, J);

200 Next J

210 Print

220 Next I

230 Data 9,1,-1,7,2,8,1,20,15

240 Print: Print

250 Print "THE RESULTANT MATRIX C IS"

260 For I = 1 To M

270 For J = 1 To N

280 C(I, J) = A(I, J) - B(I, J)

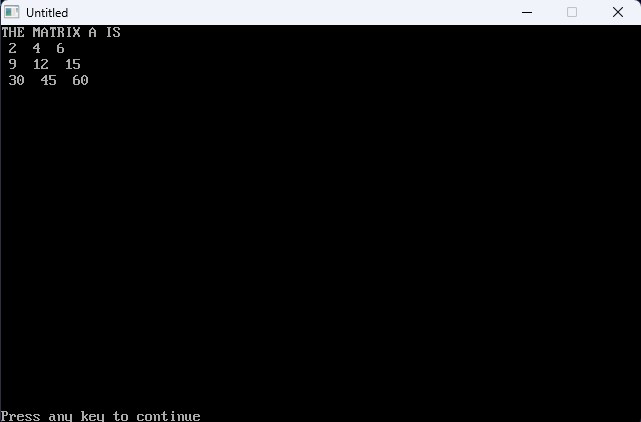
290 Print C(I, J);

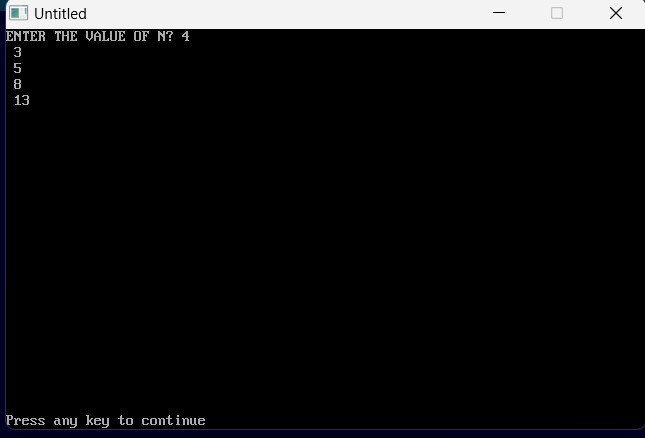
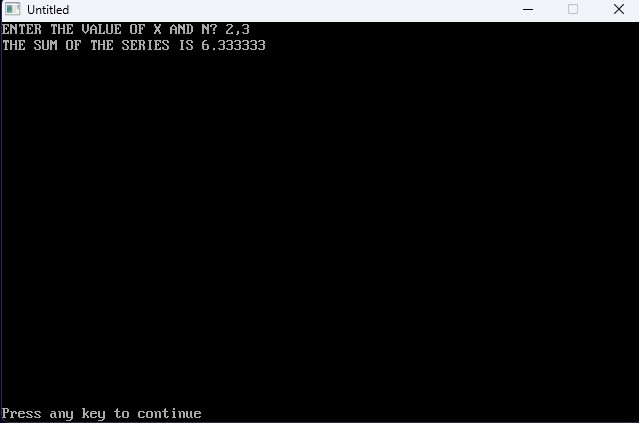
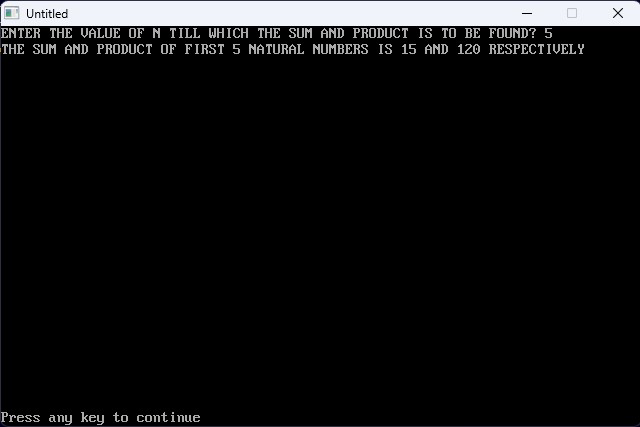
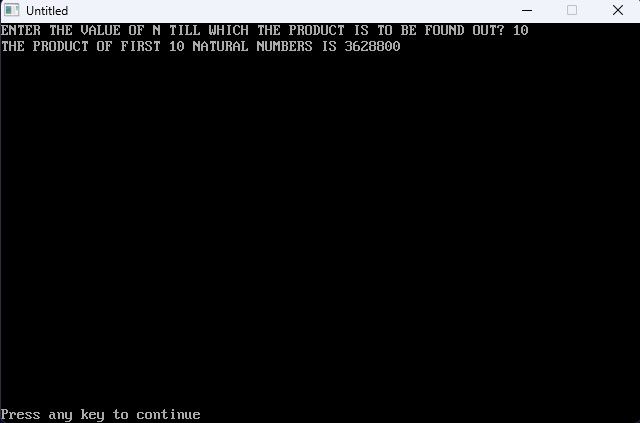
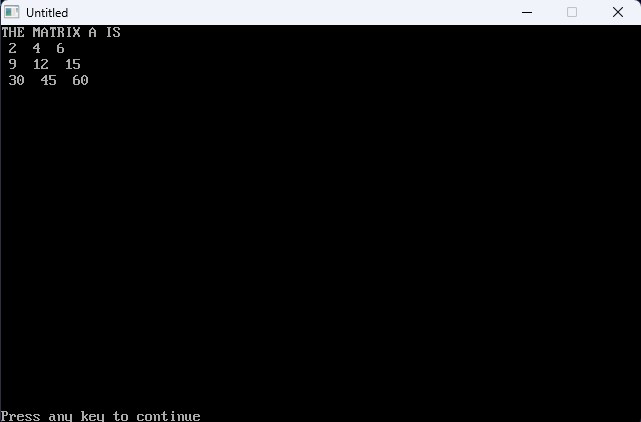
300 Next J

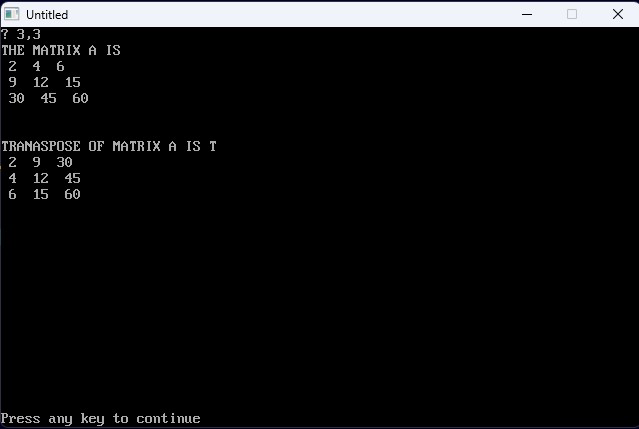
310 Print

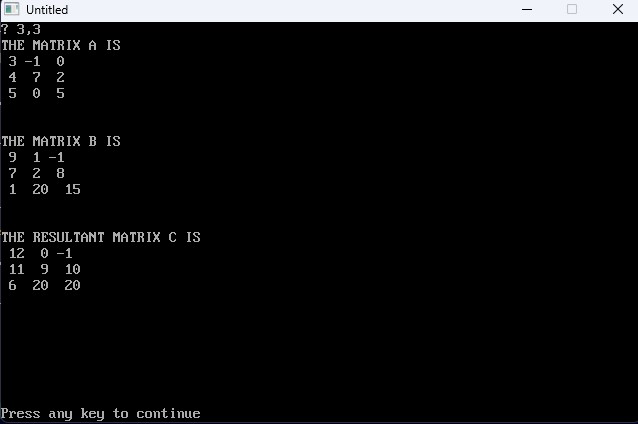
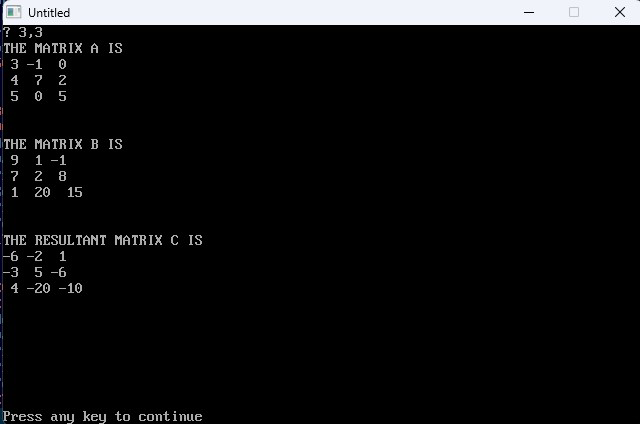
320 Next I

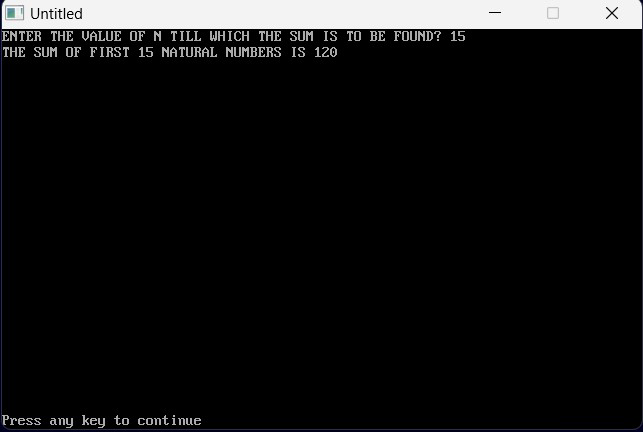
330 End

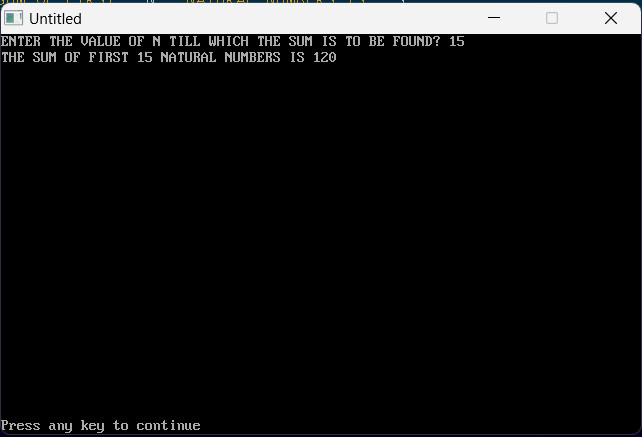












PROGRAM 1

10 Rem "TO FIND THE SUM, PRODUCT, DIVISION AND DIFFERENCE OF TWO NUMBERS"

20 Input "ENTER THE TWO NUMBERS"; A, B

30 Let C = A + B

40 Let D = A \* B

50 Let E = A / B

60 Let F = A - B

70 Print "THE SUM F THE TWO NUMBERS"; C

80 Print "THE PRODUCT OF THE TWO NUMBERS"; D

90 Print "THE DIVISION OF THE TWO NUMBERS"; E

100 Print "THE DIFFERENCE OF THE TWO NUMBERS"; F

110 End

PROGRAM 2

10 Rem "TO FIND THE AREA OF A CIRCLE (A)"

20 Input "ENTER THE RADIUS"; R

30 Let A = 3.14 \* (R ^ 2)

40 Print "THE AREA OF THE CIRCLE"; A

50 End

PROGRAM 3

10 Rem "TO FIND THE VOLUME OF AN IDEAL (V)"

20 Input "PRESSURE OF THE IDEAL GAS"; P

30 Input "NUMBER OF MOLES OF THE GAS"; N

40 Let R = 8.314

50 Let T = 300

60 Let V = (N \* R \* T) / P

70 Print "THE VOLUME OF THE IDEAL GAS, V IS"; V

80 End

PROGRAM 4

10 Rem "TO FIND THE PRESSURE OF CO2 GAS AT 500K AS VANDER WAAL'S GAS"; P

20 Input "ENTER THE VANDER WAAL'S CONSTANTS"; A, B

30 Input "ENTER THE NUMBER OF MOLES OF CO2"; N

35 Input "ENTER THE VOLUME OF CO2"; V

40 Let T = 500

50 Let R = 8.314

60 Let P = ((N \* R \* T) / (V - (N \* B))) - ((N \* A) / (V ^ 2))

70 Print "THE PRESSURE OF CO2 AT 500K IS "; P

80 End

PROGRAM 5

10 Rem "TO FIND THE AVERAGE VELOCITY, ROOT MEAN SQUARE VELOCITY AND MOST PROBABLE VELOCITY OF N2 GAS AT 300K"

20 Let M = 28

30 Let R = 8.314

40 Let T = 300

50 Let A = ((8 \* R \* T) / (3.14 \* M)) ^ 0.5

60 Let B = ((3 \* R \* T) / M) ^ 0.5

70 Let C = ((2 \* R \* T) / M) ^ 0.5

80 Print "THE AVERAGE VELOCITY OF N2 AT 3OOK IS"; A

90 Print "THE RMS VELOCITY OF N2 AT 3OOK IS"; B

100 Print "THE MOST PROBABLE VELCITY OF N2 GAS AT 300K IS"; C

110 End

PROGRAM 6

10 Rem "TO FIND THE SUM OF FIRST TEN NATURAL NUMBERS"

20 N = 0

30 S = 0

40 N = N + 1

50 S = S + N

60 If N < 10 Then GoTo 40

70 Print "THE SUM OF FIRST TEN NATURAL NUMBERS"; S

80 End

PROGRAM 7

10 Rem "TO FIND THE SUM OF ODD NATURAL NUMBERS LESS THAN 20"

20 N = 1

30 S = 1

40 N = N + 2

50 S = S + N

60 If N < 19 Then GoTo 40 Else GoTo 70

70 Print "THE SUM OF ODD NATURAL NUMBERS LESS THAN 20 IS"; S

80 End

PROGRAM 8

10 Rem "TO FIND THE SUM OF EVEN NATURAL NUMBERS LESS THAN 20"

20 N = 2

30 S = 2

40 N = N + 2

50 S = S + N

60 If N < 18 Then GoTo 40 Else GoTo 70

70 Print "THE SUM OF EVEN NATURAL NUMBERS LESS THAN 20 IS"; S

80 End

Program 1-8 OUTPUTS

