Pre-Lab Practice Exercises

Write a program that should take three integers m, n and p as inputs through the keyboard. Assume that m,n,p<10. Dynamically allocate two integer arrays A and B, of dimensions m×n and n×p, respectively. Fill both arrays A and B by taking integer inputs through the keyboard. Print both matrices on the screen. Then write a function Mat-mul() to multiply the two matrices A and B with the following function prototype:

int *Mat_mul(int *, int *, int, int, int);

After taking the matrices A and B as inputs, **you call the function Mat-mul() exactly once with appropriate arguments.** After the call returns, print the product of matrices A and B computed by Mat-mul() on the screen.

Sample input / output:
Enter m, n and p: 2 4 3
Enter elements of Matrix A:
Enter entry (1,1): 1
Enter entry (1,2): 3
Enter entry (1,3): -2
Enter entry (1,4): 4
Enter entry (2,1): 6
Enter entry (2,2): 0
Enter entry (2,3): 0
Enter entry (2,4): 9
Enter elements of Matrix B:
Enter entry (1,1): 0
Enter entry (1,2): -20
Enter entry (1,3): 2
Enter entry (2,1): 4
Enter entry (2,2): 9
Enter entry (2,3): 0
Enter entry (3,1): 0
Enter entry (3,2): -2
Enter entry (3,3): -3
Enter entry (4,1): -1
Enter entry (4,2): -12
Enter entry (4,3): 20

Matrix A:
1 3 -2 4
6 0 0 9

Matrix B:

0 -20 2
4 9 0
0 -2 -3
-1 -12 20

Product Matrix:
8 -37 88
-9 -228 192