Q1. Write a java program to add two matrix?

Matrix A

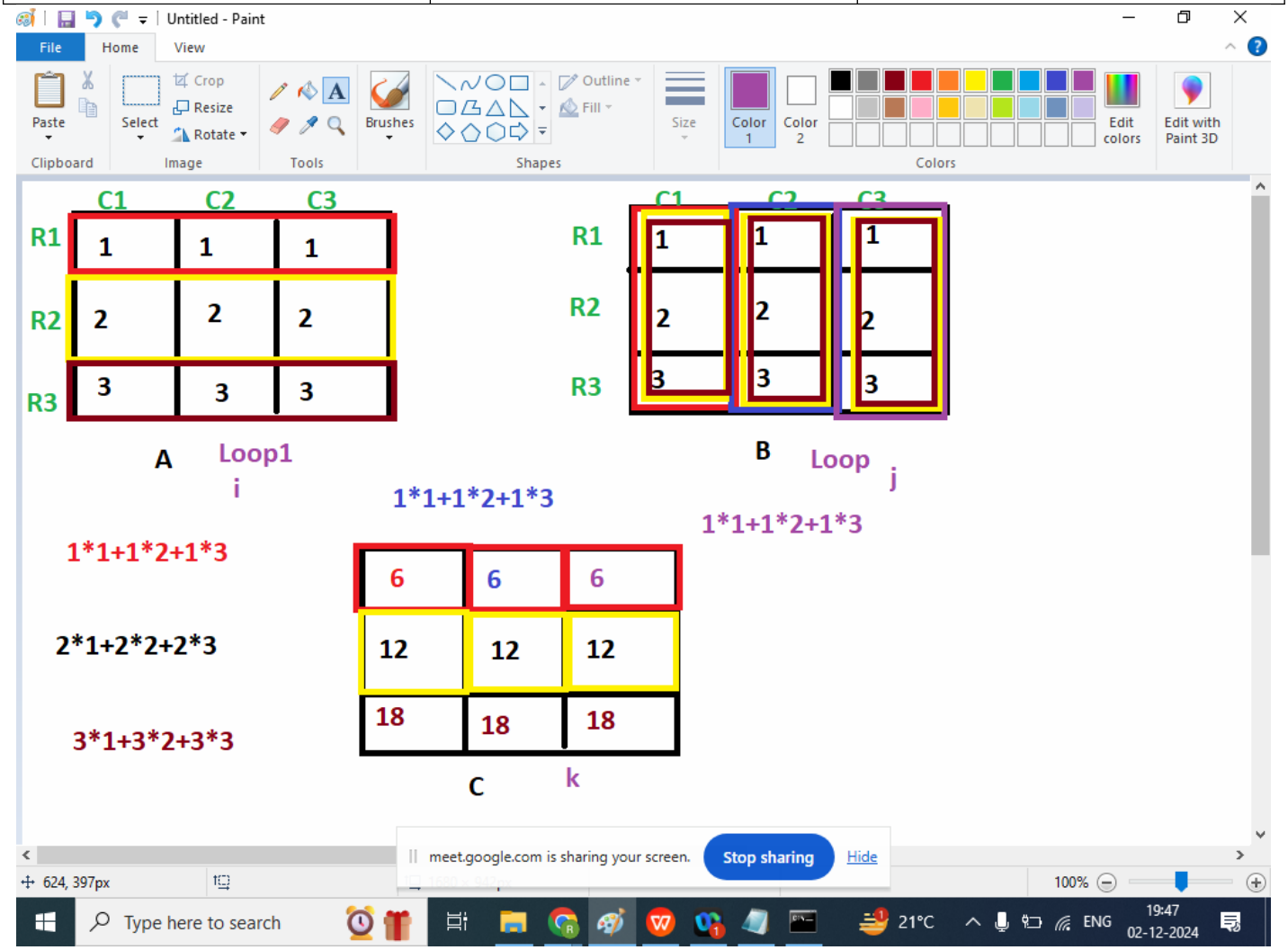
10	20	30
40	50	60
70	80	90

Matrix B

1	2	3
4	5	6
7	8	9

Matrix C

11	22	33
44	55	66
77	88	99



```
import java.util.Scanner;
class A3{
	public static void main(String args[]){
	int A[][]=new int[3][3];
	int B[][]=new int[3][3];
	int C[][]=new int[3][3];

	Scanner sk=new Scanner(System.in);
	System.out.println("Matrix A ");
	for(int i=0;i<3;i++){
	for(int j=0;j<3;j++){
	System.out.println("Enter Element Index of "+i+j+" : ");
	A[i][j]=sk.nextInt();
	}
	}
	//input Matrix B
	System.out.println("\nMatrix B ");
	for(int i=0;i<3;i++){
	for(int j=0;j<3;j++){
	System.out.println("Enter Element Index of "+i+j+" : ");
	B[i][j]=sk.nextInt();
	}
	}


	//input Matrix B
//Addition Logic
for(int i=0;i<3;i++){
	for(int j=0;j<3;j++){
	for(int k=0;k<3;k++){
	C[i][j]+=A[i][k]*B[k][j];
	}
}
}


	System.out.println("\nOutput Matrix A : ");
	for(int i=0;i<3;i++){
	for(int j=0;j<3;j++){
		System.out.print("\t"+A[i][j]);
	}
	System.out.println("");
	}//print Matrix A

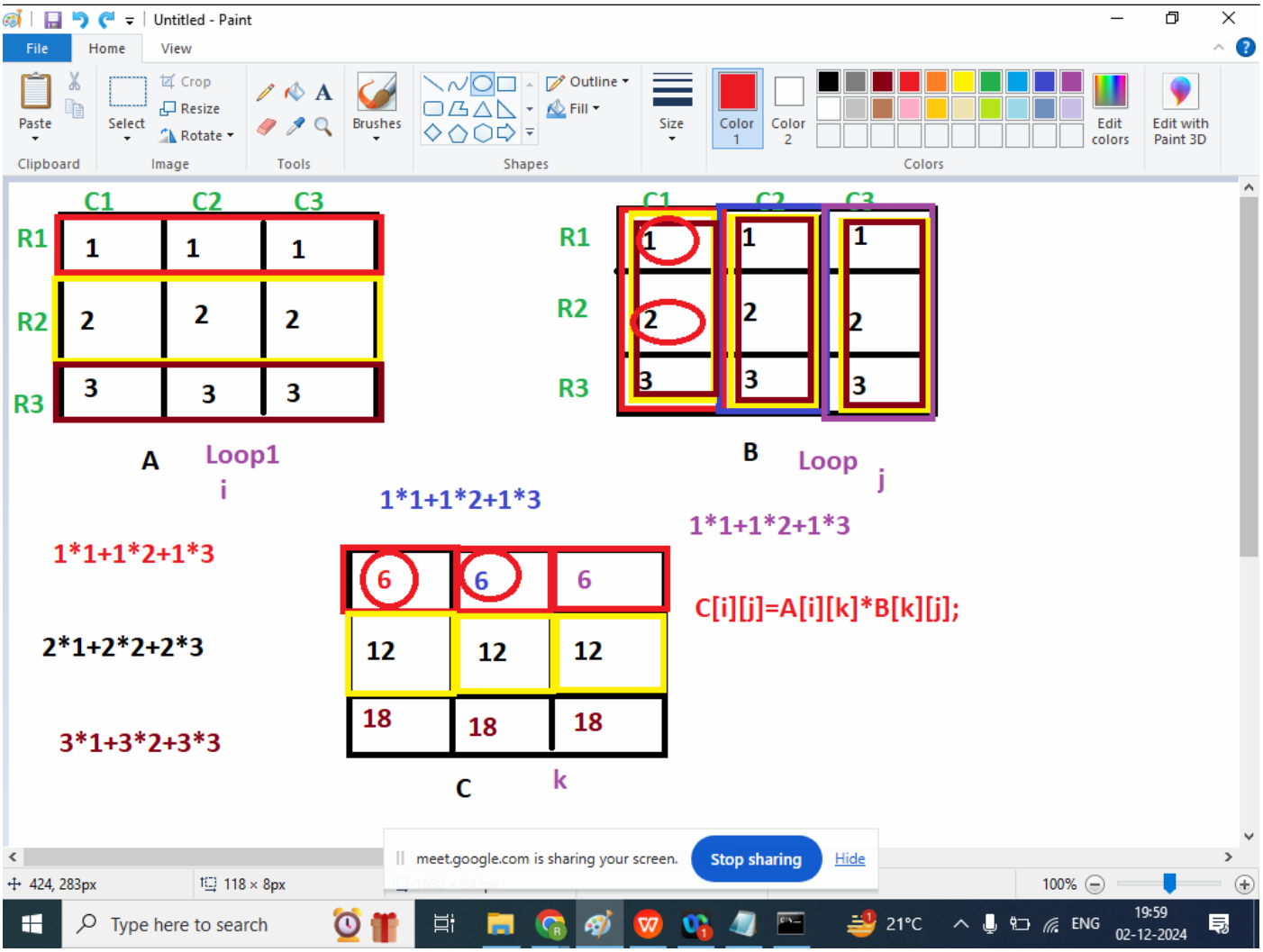
		System.out.println("\nOutput Matrix B : ");
	for(int i=0;i<3;i++){
	for(int j=0;j<3;j++){
		System.out.print("\t"+B[i][j]);
	}
	System.out.println("");
	}//print Matrix B

		System.out.println("\nOutput Matrix C Addition : ");
	for(int i=0;i<3;i++){
	for(int j=0;j<3;j++){
		System.out.print("\t"+C[i][j]);
	}
	System.out.println("");
	}//print Matrix C



	}
```

}

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class A3{
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	Scanner sk=new Scanner(System.in);
	System.out.println("Matrix A ");
	for(int i=0;i<3;i++){
	for(int j=0;j<3;j++){
	System.out.println("Enter Element Index of "+i+j+" : ");
	A[i][j]=sk.nextInt();
	}
	}
	//input Matrix B
	System.out.println("\nMatrix B ");
	for(int i=0;i<3;i++){
	for(int j=0;j<3;j++){
	System.out.println("Enter Element Index of "+i+j+" : ");
	B[i][j]=sk.nextInt();
	}
	}


	//input Matrix B
```

```
//Addition Logic
for(int i=0;i<3;i++){//i=0
		for(int j=0;j<3;j++){//j=1
		for(int k=0;k<3;k++){//k=0
		C[i][j]=C[i][j]+A[i][k]*B[k][j];
		}
}
}


		System.out.println("\nOutput Matrix A : ");
		for(int i=0;i<3;i++){//i=0
		for(int j=0;j<3;j++){//j=0
			System.out.print("\t"+A[i][j]);
		}
		System.out.println("");
		}//print Matrix A

			System.out.println("\nOutput Matrix B : ");
		for(int i=0;i<3;i++){
		for(int j=0;j<3;j++){
			System.out.print("\t"+B[i][j]);
		}
		System.out.println("");
		}//print Matrix B

			System.out.println("\nOutput Matrix C Addition : ");
		for(int i=0;i<3;i++){
		for(int j=0;j<3;j++){
			System.out.print("\t"+C[i][j]);
		}
		System.out.println("");
		}//print Matrix C



		}
}
```
