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```
SPI (c[], g[], m)
// Input: Enter credits of all subjects (c[])
          & grades of all subjects (g[]) & No. of subjects m
// Output: SPI of that semester
    sum = 0
    for (i = 0; i < m; i++)
        SPI += c[i] * GB[i]
        sum += c[i]
    SPI = SPI / sum
    return SPI
```

```
CPI (n, m[], c[][], g[][])
// Input: Enter no. of semesters (n), No. of subjects per
          sem (m[]), credits of all subjects in all sems (c[][]),
          Grades of all subjects in all sems (g[][])
// Output: CPI
          for (i=0 ; i<n; i++)
              CPI += SPI (c[i][], g[i][], m[i])
           CPI = CPI/n
           return CPI
```

TESTCASES:

~~1. m=0, n m=~~

SPI:

~~1. m=0~~

~~Output: SPI=0~~

SPI:

1. c[] = { }

g[] = { }

m = 0

Output: SPI = 0

2. c[] = {1, 1, 1.5, 2}

g[] = {10, 9, 10, 8}

m = 5

Output: More subjects than grades given

3. c[] = {1, 1, 1}

g[] = {10, 10, 10}

m = 2

Output: More ~~credits &~~ grades given than subjects

4. c[] = {1, 2, 1.5}

g[] = {9, 10, 8, 7}

m = 4

Output: All Grades dont have credits

5. c[] = {1, 2, 1.5, 2}

g[] = {10, 9, 8}

m = 4

Output: All Credits dont have grades.

CPI:

1. n = 0
   m [ ] = { }
   c [ ] [ ] = { { } }
   s [ ] [ ] = { { } }
   output: CPI = 0

2. n = 2
   m [ ] = { 3, 2 }
   c [ ] [ ] = { { 1, 1 , 2 } , { 2, 1 } }
   g [ ] [ ] = { { 10, 9, 8 }, { 10, 9 } }
   Output: ~~CPI =~~ CPI = 9.21

3. n = 2
   m [ ] = { 1, 2, 3 }
   c [ ] [ ] = { { 1 }, { 1, 2 }, { 1, 2, 4 } }
   g [ ] [ ] = { { 8 }, { 8, 7 }, { 8, 9, 10 } }
   Output: No. of semesters provided is less than semesters with grades

4. n = 4
   m [ ] = { 1 }
   c [ ] [ ] = { { 4 } }
   g [ ] [ ] = { { 10 } }
   Output: ~~No of subj~~ subjects not provided for all semesters

5. n = 9
   m [ ] = { 1, 1, 1, 1, 1, 1, 1, 1, 1 }
   c [ ] [ ] = { { 1 }, { 1.5 }, { 2 }, { 2.5 }, { 3 }, { 3.5 }, { 4 }, { 3.5 }, { 2 } }
   g [ ] [ ] = { { 6 }, { 7 }, { 8 }, { 9 }, { 10 }, { 9 }, { 8 }, { 7 }, { 6 } }
   Output: Too many semesters