

- a. write a program that accepts marks of five subjects and finds percentage and prints grades according to the following criteria:

Between 90-100%-----Print 'A'

80-90%-----Print 'B'

60-80%-----Print 'C'

Below 60%-----Print 'D'

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| <pre>main.c</pre> <pre> 1 #include &lt;stdio.h&gt; 2 3 int main() { 4     float m1, m2, m3, m4, m5, total, percentage; 5 6     // Input marks for five subjects 7     printf("Enter marks of five subjects: "); 8     scanf("%f %f %f %f %f", &amp;m1, &amp;m2, &amp;m3, &amp;m4, &amp;m5); 9 10    // Calculate total and percentage 11    total = m1 + m2 + m3 + m4 + m5; 12    percentage = total / 5; 13 14    // Print percentage 15    printf("Percentage = %.2f%%\n", percentage); 16 17    // Determine grade 18    if (percentage &gt;= 90 &amp;&amp; percentage &lt;= 100) 19        printf("Grade: A\n"); 20    else if (percentage &gt;= 80 &amp;&amp; percentage &lt; 90) 21        printf("Grade: B\n"); 22    else if (percentage &gt;= 60 &amp;&amp; percentage &lt; 80) 23        printf("Grade: C\n"); 24    else 25        printf("Grade: D\n"); 26 27    return 0; 28 }</pre> |  <br><b>Run</b> | <p><b>Output</b></p> <pre> Enter marks of five subjects: 45 67 89 65 58 Percentage = 64.80% Grade: C  ==== Code Execution Successful ==== </pre> |
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- b. Write a C program that swaps values of two variables using a third variable.

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| <pre>main.c</pre> <pre> 1 #include &lt;stdio.h&gt; 2 3 int main() { 4     int a, b, temp; 5 6     // Input two numbers 7     printf("Enter two numbers: "); 8     scanf("%d %d", &amp;a, &amp;b); 9 10    printf("Before swapping: a = %d, b = %d\n", a, b); 11 12    // Swapping using a third variable 13    temp = a; 14    a = b; 15    b = temp; 16 17    printf("After swapping: a = %d, b = %d\n", a, b); 18 19    return 0; 20 }</pre> |  <br><b>Run</b> | <p><b>Output</b></p> <pre> Enter two numbers: 3 5 Before swapping: a = 3, b = 5 After swapping: a = 5, b = 3  ==== Code Execution Successful ==== </pre> |
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c. Write a C program to find the greatest of three numbers.

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| main.c   |   | Run | Output |
| <pre>1 #include &lt;stdio.h&gt; 2 3 int main() { 4     int a, b, c; 5 6     // Input three numbers 7     printf("Enter three numbers: "); 8     scanf("%d %d %d", &amp;a, &amp;b, &amp;c); 9 10    // Compare numbers 11    if (a &gt;= b &amp;&amp; a &gt;= c) 12        printf("Greatest number is: %d\n", a); 13    else if (b &gt;= a &amp;&amp; b &gt;= c) 14        printf("Greatest number is: %d\n", b); 15    else 16        printf("Greatest number is: %d\n", c); 17 18    return 0; 19 }</pre> | Enter three numbers: 23 14 3<br>Greatest number is: 23<br><br>== Code Execution Successful == |     |        |

d. Write a C program that tells whether a given year is a leap year or not.

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| main.c  |   | Run | Output |
| <pre>1 #include &lt;stdio.h&gt; 2 3 int main() { 4     int year; 5 6     // Input year 7     printf("Enter a year: "); 8     scanf("%d", &amp;year); 9 10    // Check for leap year 11    if ((year % 4 == 0 &amp;&amp; year % 100 != 0)    (year % 400 == 0)) 12        printf("%d is a leap year.\n", year); 13    else 14        printf("%d is not a leap year.\n", year); 15 16    return 0; 17 }</pre> | Enter a year: 2004<br>2004 is a leap year.<br><br>== Code Execution Successful == |     |        |