Practical Test 1 - One

Time: 45 minutes

Write a program to calculate if a number: is divisible by 3; is divisible by 5; is divisible by both 3 and 5; or is divisible by neither 3 nor 5.

Use the Scanner class for input. Your program need not use object-oriented techniques. Assume the input will always be an integer.

Sample I/O:

```
Enter a number:
27
27 is divisible by 3.
```

Sample I/O:

```
Enter a number:
100
100 is divisible by 5.
```

Sample I/O:

```
Enter a number:
30
30 is divisible by both 3 and 5.
```

Sample I/O:

```
Enter a number:
32
32 is divisible by neither 3 nor 5.
```

You may consult your paper notes and textbook, but no electronic resources. You may NOT use a search engine or consult any Web resources (including Vula) or files on your flash disk, hard drive, etc.

Comments are important in all programs, but note that no marks are assigned for comments.

Submit the Java source file contained within a .ZIP file to the Automatic Marker.

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Practical Test 1 - Two

Time: 45 minutes

Write a program to output the number of days in a specified month. Assume it is not a leap year. The days in each month are as follows: (January=31, February=28, March=31, April=30, May=31, June=30, July=31, August=31, September=30, October=31, November=30, December=31)

Use the Scanner class for input. Your program need not use object-oriented techniques. Assume the input will always be a valid month name.

Sample I/O:

```
Enter a month:
January
January has 31 days.
```

Sample I/O:

```
Enter a month:
November
November has 30 days.
```

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Practical Test 1 - Three

Time: 45 minutes

Write a program to calculate if a rational number is less than 1 or not.

Use the Scanner class for input. Your program need not use object-oriented techniques. Assume the input will always be 2 integers, with the denominator being non-zero.

Sample I/O:

```
Enter the numerator:
4
Enter the denominator:
5
4/5 is less than 1.
```

Sample I/O:

```
Enter the numerator:
5
Enter the denominator:
4
5/4 is not less than 1.
```

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Practical Test 1 - Four

Time: 45 minutes

Write a program to calculate if you will get DP or not, based on marks for your practical assignments and practical tests.

Remember that to get DP you have to score at least 45% for PAverage, where:

$$PAverage = 1/5 * PTests + 4/5 * PAssignments$$

Use the Scanner class for input. Your program need not use object-oriented techniques. Assume the input will always be valid integer percentages, and the calculation is done using floating-point numbers.

Sample I/O:

```
Enter your practical assignment average:
35
Enter your practical test average:
55
You do not get DP!
```

Sample I/O:

```
Enter your practical assignment average:
55
Enter your practical test average:
35
You get DP!
```

You may consult your paper notes and textbook, but no electronic resources. You may NOT use a search engine or consult any Web resources (including Vula) or files on your flash disk, hard drive, etc.

Comments are important in all programs, but note that no marks are assigned for comments.

Submit the Java source file contained within a .ZIP file to the Automatic Marker.