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O BJP4 Exercise 5.1: showTwos

Show Header

Language/Type: Java while loops method basics mod Leslie Ferguson (on 2016/09/08)

Write a method named showTwos that shows the factors of 2 in a given integer. For example, the following calls:

```
showTwos(7);
showTwos(18);
showTwos(68);
showTwos(120);
```

should produce this output:

```
7 = 7

18 = 2 * 9

68 = 2 * 2 * 17

120 = 2 * 2 * 2 * 15
```

```
Type your solution here:
```

```
1 public static void showTwos(int n) {
 2
       String s = "";
 3
       int i = n;
 4
       while (i % 2 == 0) {
           s += "2 * ";
 5
 6
       i /= 2;
 7
       }
 8
       s += i;
       System.out.println(n + " = " + s);
 9
10 }
```

This is a **method problem.** Write a Java method as described. Do not write a complete program or class; just the method(s) above.



✓ Sound F/X✓ Highlighting

Indent

Go to the next problem: gcd

```
test #1: showTwos(7);
console output: 7 = 7
        result:   opass
       test #2: showTwos(18);
console output: 18 = 2 * 9
        result: ⊘ pass
       test #3: showTwos(68);
console output: 68 = 2 * 2 * 17
        result: ⊘ pass
       test #4: showTwos(120);
console output: 120 = 2 * 2 * 2 * 15
        result:   opass
       test #5: showTwos(-10);
console output: -10 = 2 * -5
        result:   opass
       test #6: showTwos(-32);
console output: -32 = 2 * 2 * 2 * 2 * 2 * -1
        result:   opass
```

If you do not understand how to solve a problem or why your solution doesn't work, please contact your TA or instructor.

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