7. Pal Palindromes

Program Name: Pals.java Input File: pals.dat

There are many numbers that are palindromes, numbers whose digits read the same backwards and forwards. For example, 121, 363, 444, 989, and 5 are all palindromes. Also, if a number `j` is not a multiple of 10, there are an infinite number of multiples of `j` which are also palindromes. I call these numbers Pal Palindromes. For example, if `j` is 3, then 6, 9, 141, and 222 are some of Pal Palindromes that are multiples of `j`.

You are to write a program that, given a positive integer `m`, will determine how many of `m`'s Pal Palindromes contain a specific number of digits.

Input
The first line of input will contain a single integer `n` that indicates the number of test cases to follow. Each of the following `n` lines will contain two positive integers in the format `m d`, where $m \leq 50$ is the number for which you are to find its Pal Palindromes and $d \leq 7$ is the number of digits in the Pal Palindrome.

Output
For each test case, you will print a line containing the number of `m`'s Pal Palindromes that contain `d` digits.

Example Input File
```
4
5 2
7 3
20 5
12 4
```

Example Output to Screen
```
1
12
0
7
```