Question: If the product of the digits of a number is a non-zero square number then the number is called lucky number. How many three digit lucky numbers are there?

Mathematica code:

```
lucky = {};
For[ n=100,n<1000,n++,
 p = Product[IntegerDigits[n][[i]],{i,1,Length[IntegerDigits[n]]}];
 If[(Round[p^(1/2)]==p^(1/2))&&(p≠0),
lucky=Append[lucky,n]]]
lucky
Length[lucky]
```

Result:

```
{111,114,119,122,128,133,141,144,149,155,166,177,182,188,191,194,199,212,2
18,221,224,229,236,242,248,263,281,284,289,292,298,313,326,331,334,339,343
,362,368,386,393,411,414,419,422,428,433,441,444,449,455,466,477,482,488,4
91,494,499,515,545,551,554,559,595,616,623,632,638,646,661,664,669,683,696
,717,747,771,774,779,797,812,818,821,824,829,836,842,848,863,881,884,889,8
92,898,911,914,919,922,928,933,941,944,949,955,966,977,982,988,991,994,999
}
111.
```

Answer: 111.