# Euler 0029

## The Problem:

How many distinct terms are in the sequence generated by a^b for a and b being bounded to 2 and 100 inclusive?

## Considerations and Approach:

Naively, this is only processing 100*100 numbers, not really much at all.
We can create a python set and then insert every calculation, so it will remove the redundancy.

## The Code:

```
lower_limit = 2
upper_limit = 100

#create a set
distinct = set()
#go through the inclusive ranges
for i in range(lower_limit, upper_limit + 1):
    for j in range(lower_limit, upper_limit + 1):
        #do the set addition operator for a^b
        distinct.add(i**j)

#print how many distinct pairs that we created
print(len(distinct))
```

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