

In [15]:

```
def subset_sum(numbers, target, partial=[]):
    s = sum(partial)

    # check if the partial sum is equals to target
    if s == target:

        Subsets.append(partial)

    if s >= target:
        return # if we reach the number why bother to continue

    for i in range(len(numbers)):
        n = numbers[i]
        subset_sum(numbers, target, partial + [n])
```

In [16]:

```
Subsets = []
subset_sum([f for f in range(3,37)],36)
```

In [17]:

```
wsumL = []
for subset in Subsets:
    wsum = 0
    for t in range(len(subset)):
        if t == 0:
            wsum += 10*subset[0]-10
        else:
            wsum += (subset[t-1])*(subset[t]-1)
    wsumL.append(wsum+subset[-1])
```

In [18]:

```
max(wsumL)
```

Out[18]: 510

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