**Test Cases**

Capsule Size 12:

A black screen with white text

Description automatically generated

Capsule Size 13:

A black screen with white text

Description automatically generated

Capsule Size 14:

A screen shot of a black background

Description automatically generated

Capsule Size 15:

A screen shot of a black background

Description automatically generated

Capsule Size 16:

A screen shot of a computer

Description automatically generated

Explanation:

The trend seems to be that the percent utilization seems to decrease depending on your group size distributions. Our largest group size has 12 (I used the default file in the example), and I varied the capsule size from 12-16. The utilization decreased until 15, where it had an increase, but it decreased once the capsule size was 16. This is because 15 happened to be a point where our specific numbers evenly distributed in the capsules, but at 16 there were more empty spaces left due to a larger capsule size. This also explains why the utilization kept dropping from 12-15. There were more empty spots, and since were not maximizing space and just closing capsules based on input order, the large numbers might throw off the capsule distribution and unnecessarily create a new capsule.

**Full Results:**

Capsule Size: 12

A screenshot of a computer

Description automatically generated

A screenshot of a computer program

Description automatically generated

Capsule Size 13:

A screenshot of a computer program

Description automatically generated

A screenshot of a computer program

Description automatically generated

Capsule Size 14:

A screenshot of a computer program

Description automatically generated

A screenshot of a computer

Description automatically generated

Capsule Size 15:

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Capsule Size 16:

A screenshot of a computer

Description automatically generated

A screenshot of a computer program

Description automatically generated