Chart, scatter chart

Description automatically generated with medium confidenceChart, scatter chart

Description automatically generated

When n = 20, we could find that their linear relationship is y = 0.6098x – 1.7526(x represents objects and y represents pairs)

When we use sufficient different values of n: Text

Description automatically generated

Graphical user interface, text

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

A screenshot of a computer

Description automatically generated with medium confidence

Graphical user interface, text

Description automatically generated

Based on the outcome, we could find that as the number of objects decreases, generally, the number of pairs also shows a downward trend. I thnk the reason is because although Random function generates random pairs, the number is always in the middle of the range and seldom generates extreme values;