MOD300 Anvendt Python programmering og modellering

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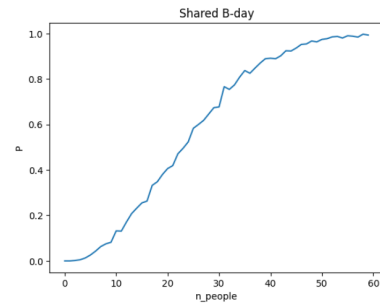
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B-day paradox

How many people there should be in a room to have 50% chances of having at least two person with the same b-day?


```
for i, j in enumerate(counter):
    if j > 0.5:
        break
print(i)
24
```

Central Limit Theorem

The average of an independent random variable follows a normal distribution.

Everyday life?

What is the P distribution of the sum of two random number from a flat distribution?

What is the P distribution of the sum of three random number from a flat distribution?

Now you can win at Risk.

Random Walk

Random number are a powerful tool

1D Walk randomly right or left.

2D Walk randomly right or left, front or back.

3D Walk randomly right or left, front or back, top or bottom.

Random walk build up

Code to go fast: $2d_f ast.py$

Code for multiple: $2rnd_w alkers.py$

Code for pbc conditions: $pbc_r nd_w alk.py$

Code for wall boundary conditions: $walls_r nd_w alk.py$