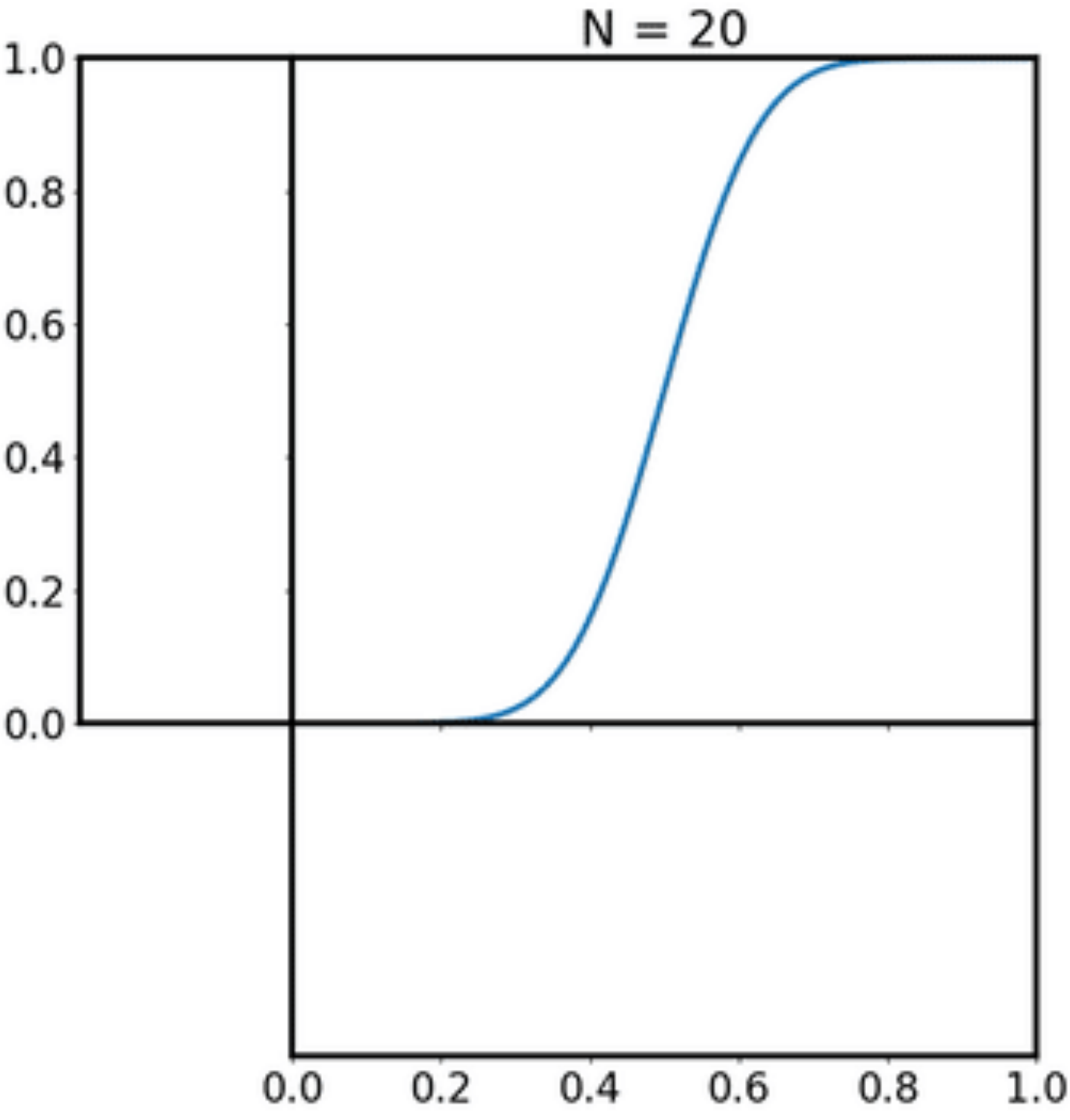
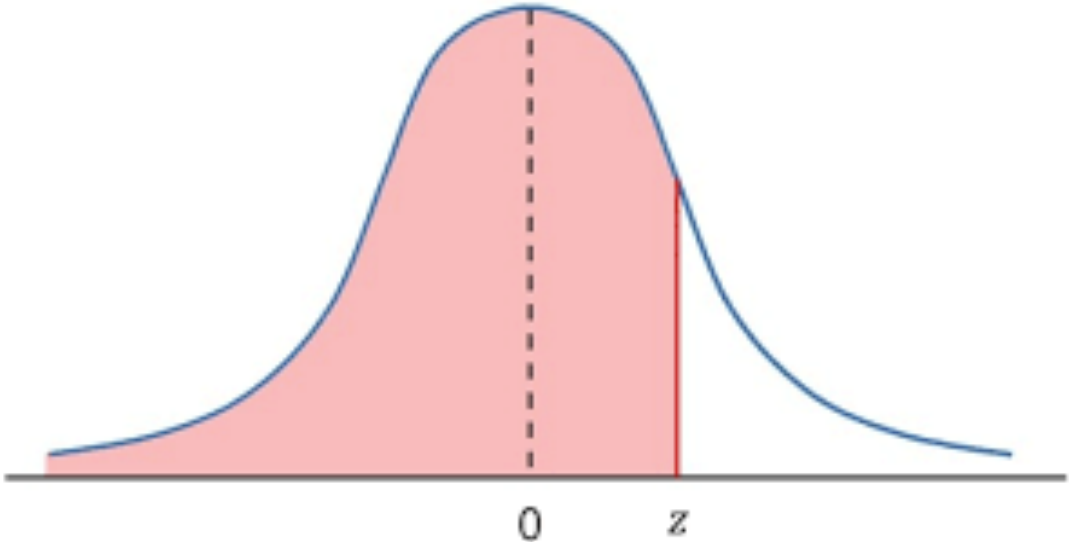
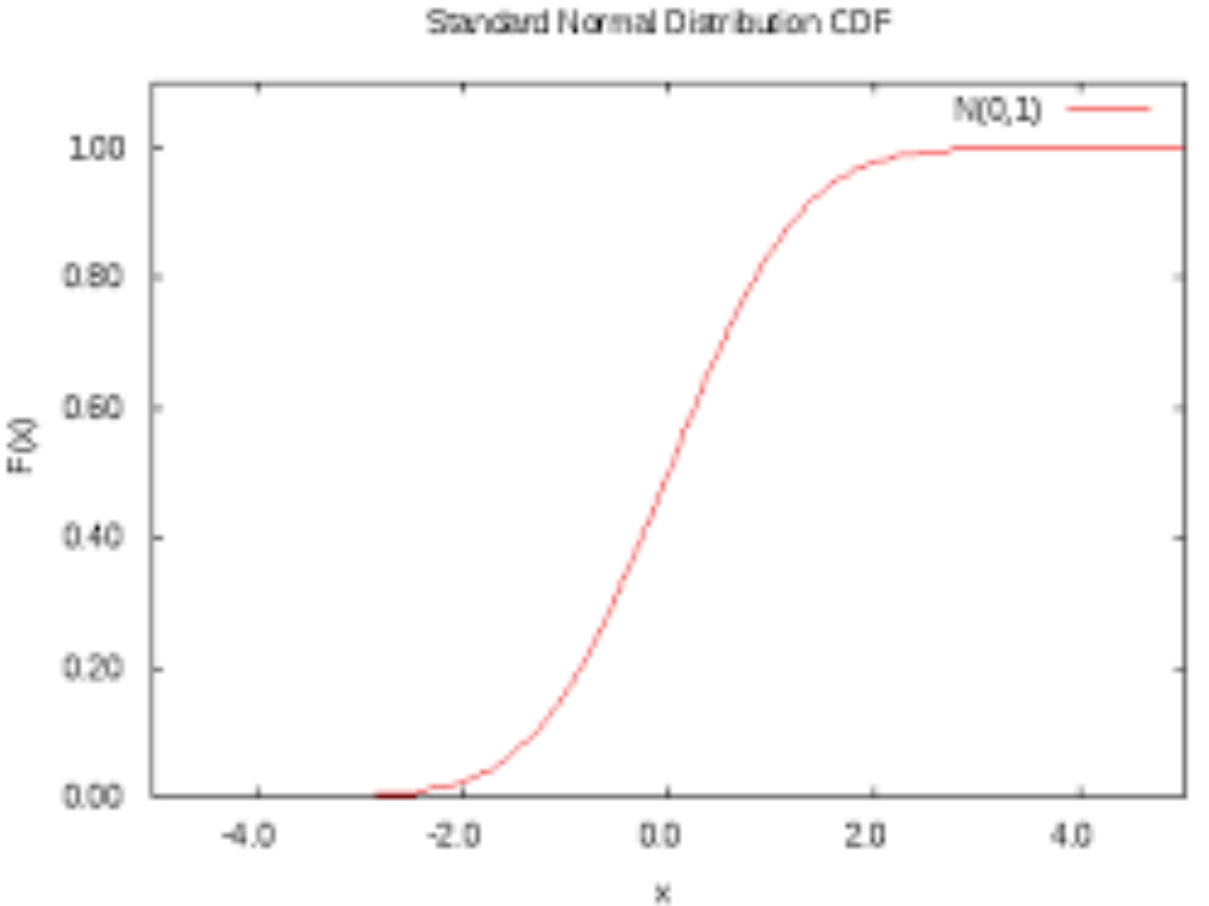
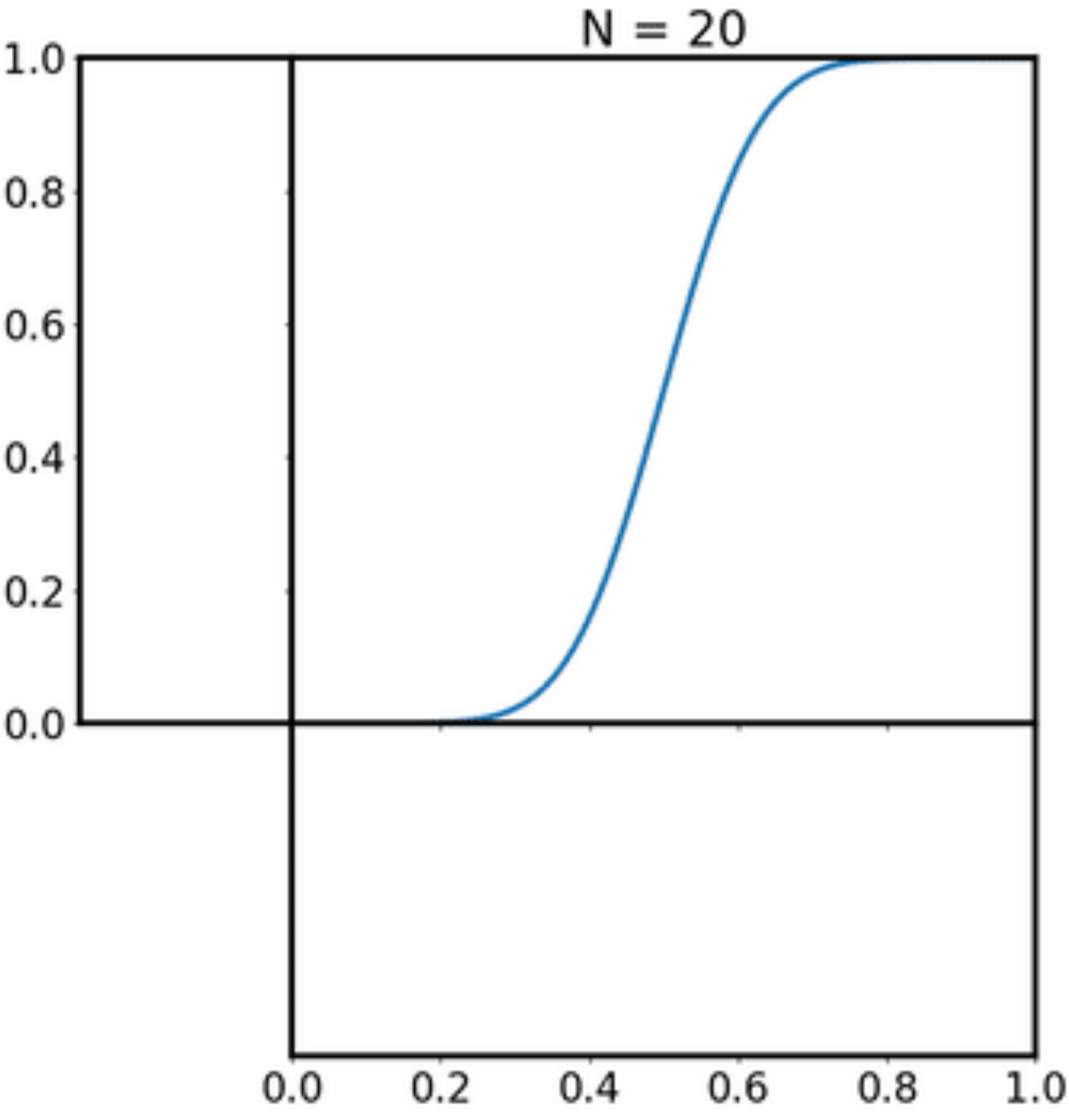
Inverse CDF Method

역변환법


N = 20
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0


0
z


Standard Normal Distribution CDF
N(0,1)
1.00
0.80
0.60
0.40
0.20
0.00
F(X)
-4.0
-2.0
0.0
2.0
4.0
x


N = 20
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

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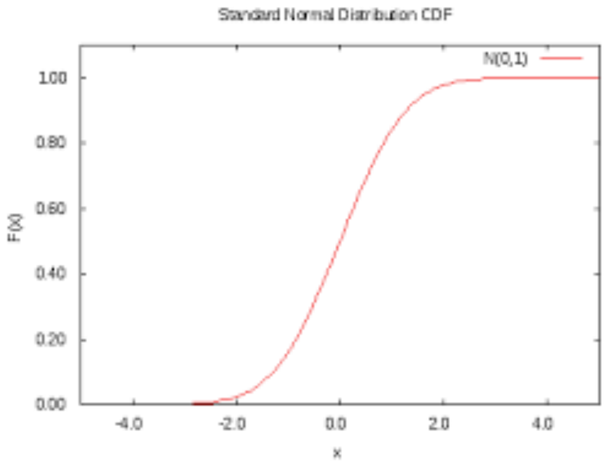

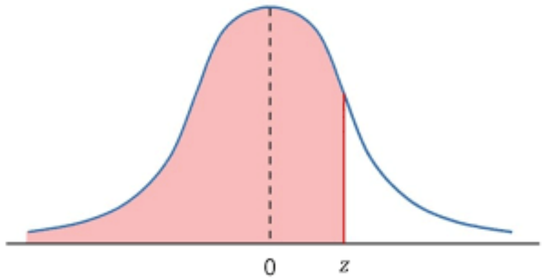

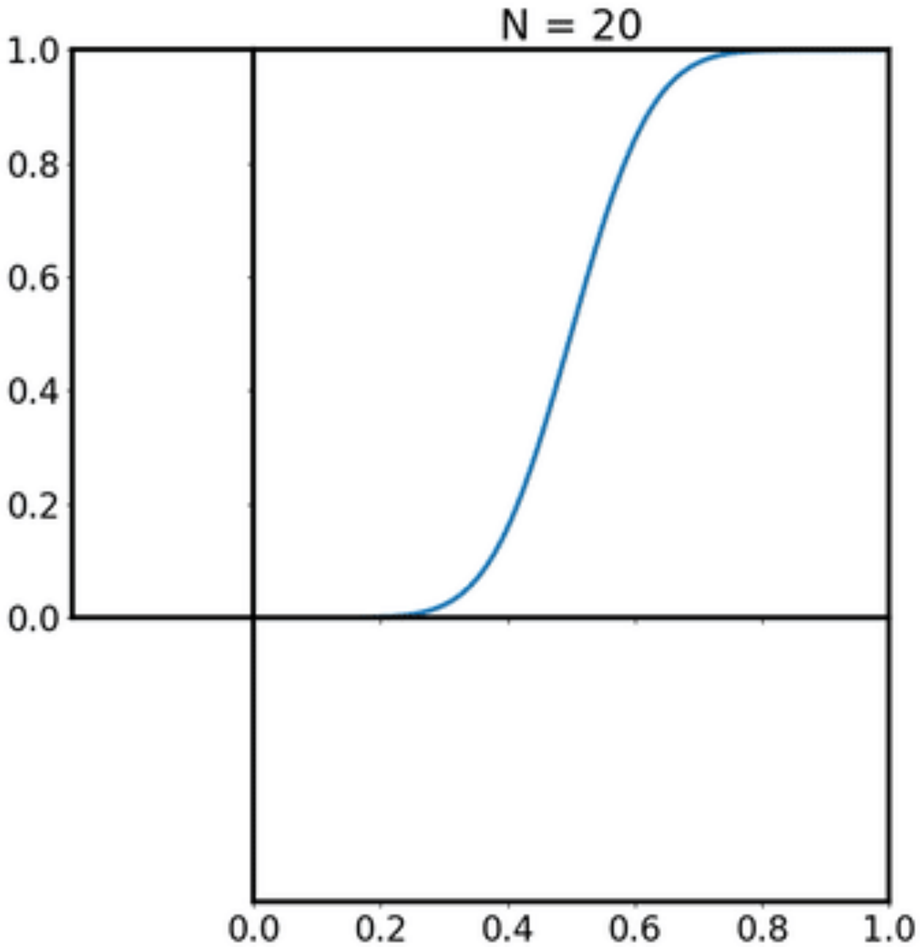

구현코드

```
const   sample_num = 424242;
let     sample_data = [];
let     i = 0;

while (i < sample_num)
{
    const lamda = 1.5;
    const uniform_data = Math.random();
    // cdf의 역함수
    const transed_data = -lamda * Math.log(1 - uniform_data);
    sample_data.push(transed_data);
    i++;
}

const display_sampling = [{
    x: sample_data,
    type: 'histogram',
    xbins: {
        start: 0
}
}];

Plotly.newPlot('display_sampling', display_sampling);
```