Comparing populations

Frequency

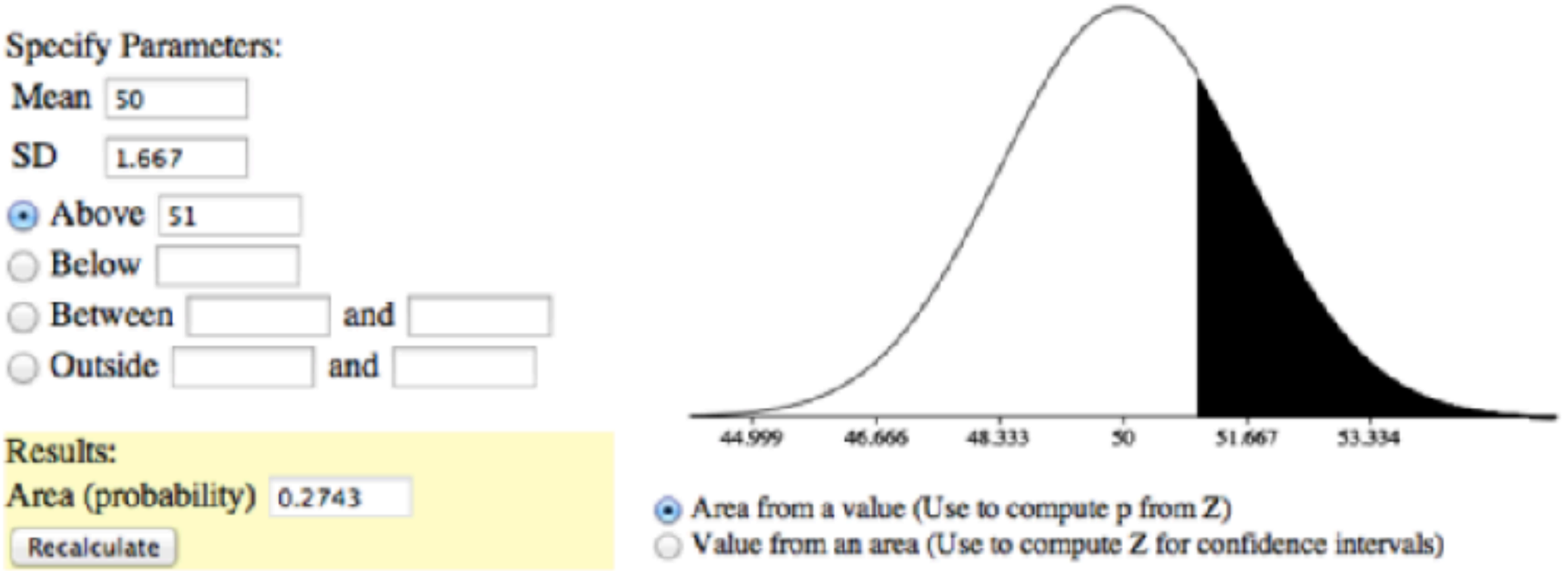
45
48
49
49
51
52
53
55
57

$$\sigma 2 = N\pi(1-\pi)$$

$$= 100(0.5)(1-0.5)$$

$$= 25$$

probability of a sample mean being 51 or greater



calculator source: onlinestatbook.com

Probability of a sample mean being less than or equal to 49 or greater than or equal to 51

Specify Parameters:

Mean 50

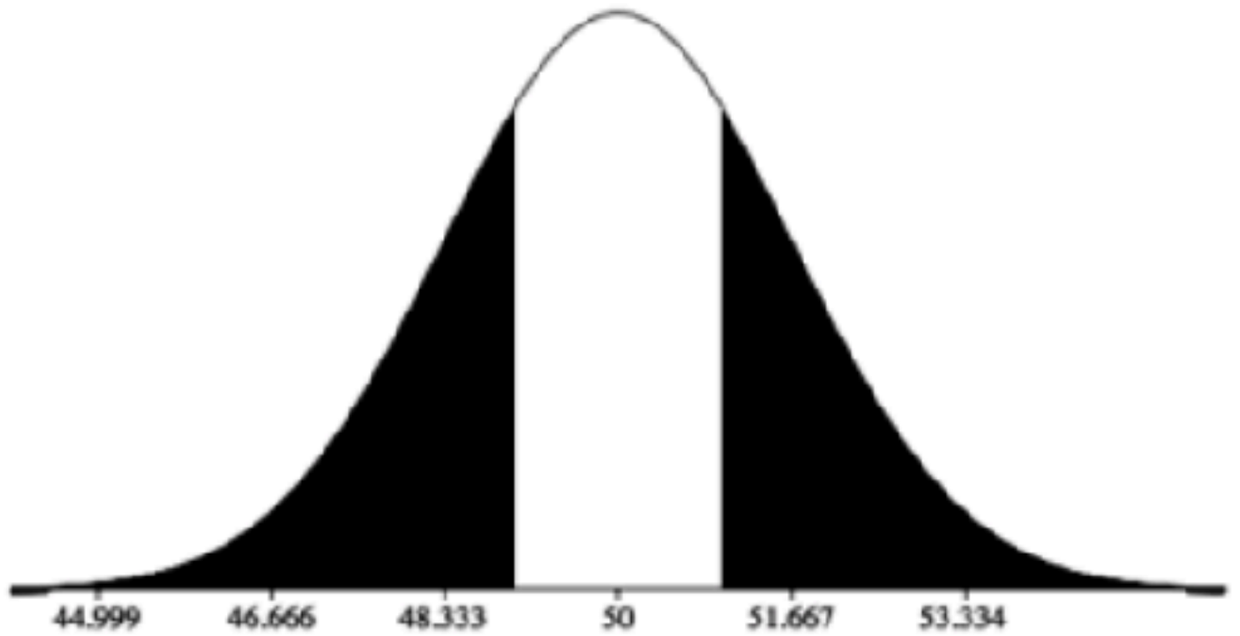
SD 1.667

- Above 1.96
- Below 1.96
- Between -1.96 and 1.96
- Outside 49 and 51

Results:

Area (probability) 0.5486

Recalculate



calculator source: onlinestatbook.com

$$Z = \frac{M - \mu}{\sigma_M}$$

Calculation using the standardized normal distribution

Specify Parameters:

Mean 0

SD 1

- (•) Above .6
- ( ) Below 1.96
- ( ) Between -1.96 and 1.96
- ( ) Outside 49 and 51

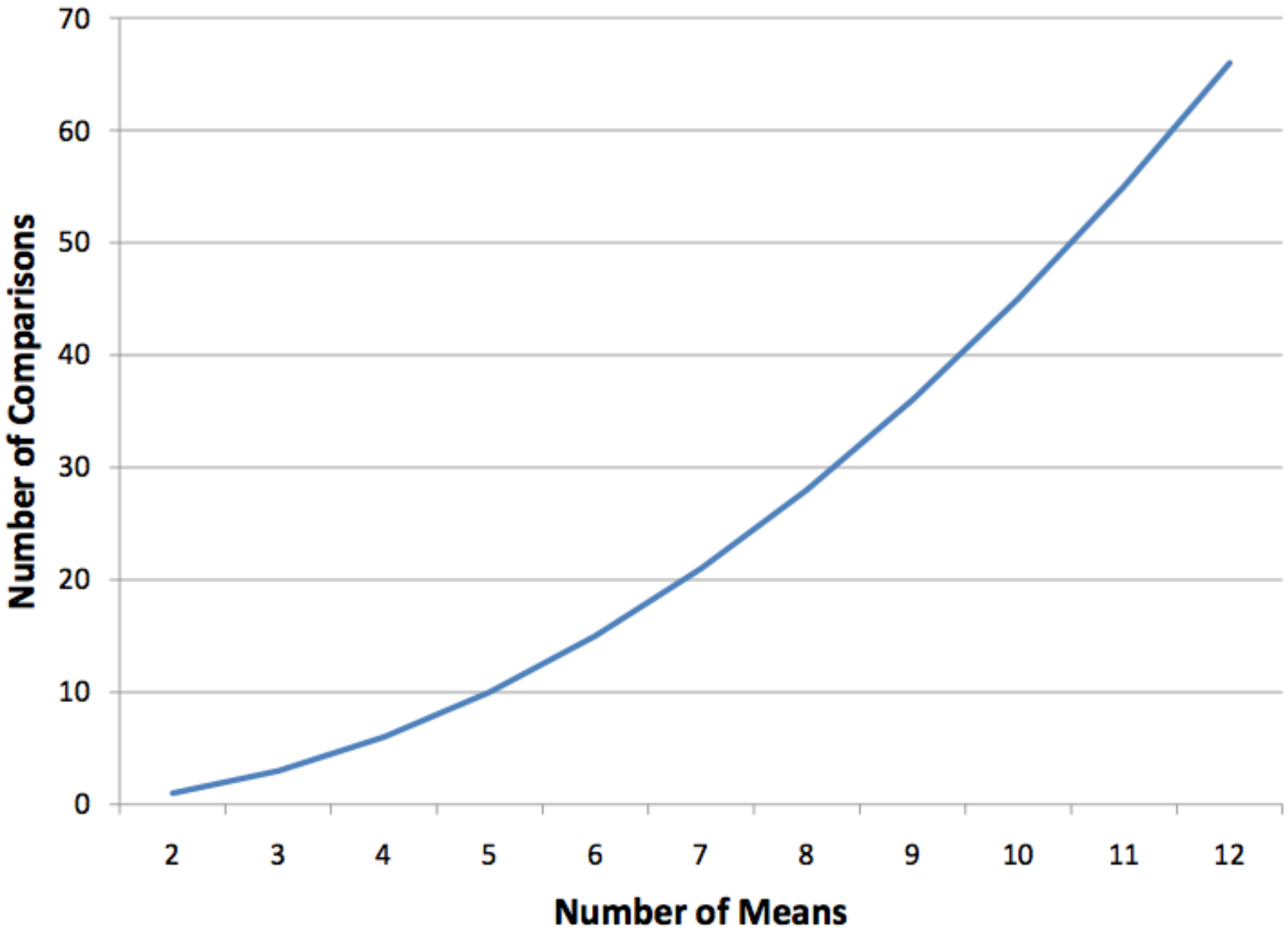
Results:

Area (probability) 0.2743

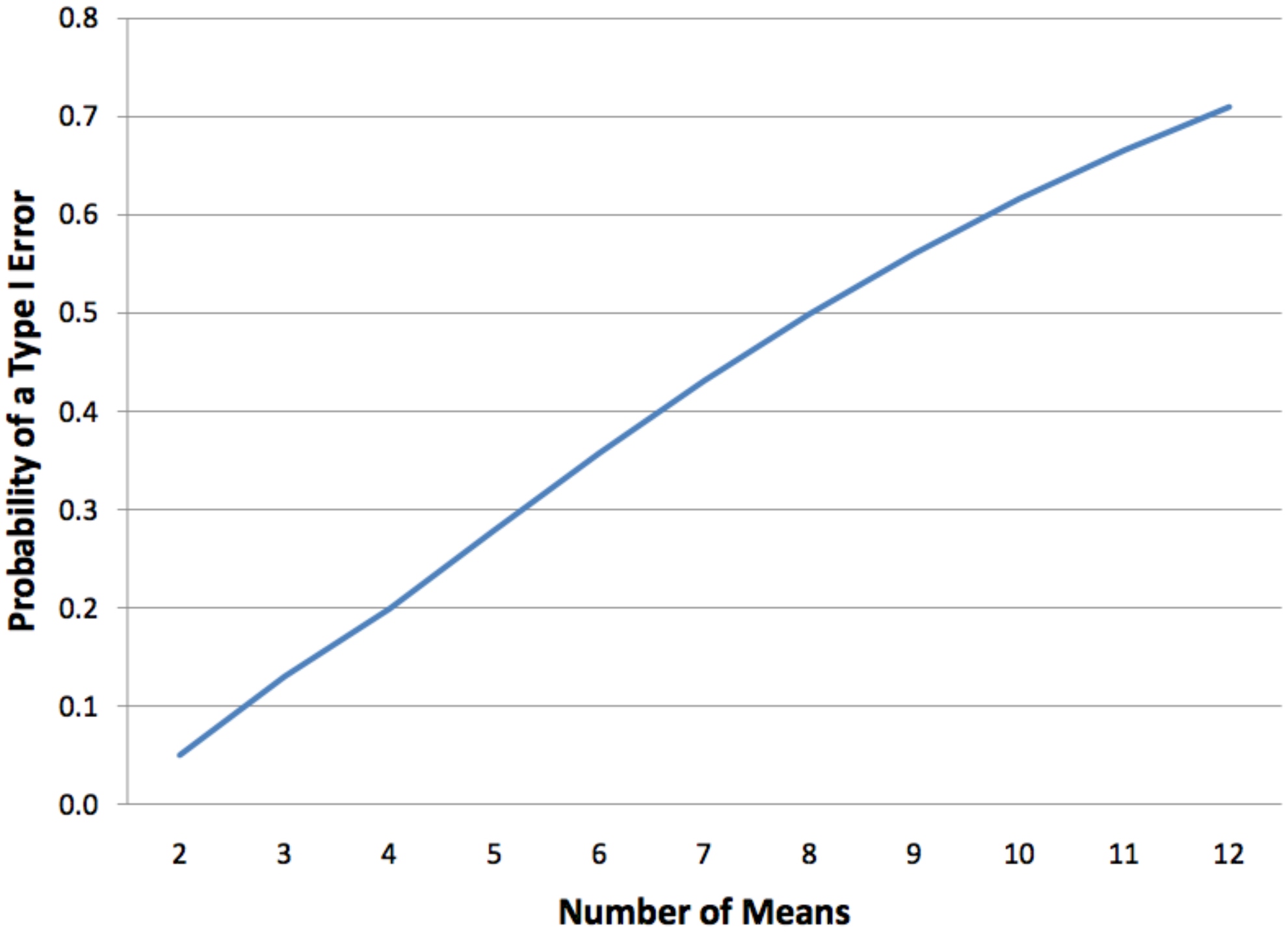
Recalculate

- (•) Area from a value (Use to compute p from Z)
- ( ) Value from an area (Use to compute Z for confidence intervals)

Pairwise Comparisons Among Means



Pairwise Comparisons Among Means



Specific comparisons

Multiple comparisons

$$FW \leq c\alpha$$

- Thanks for your attention