

A SHORT TABLE OF THE NORMAL DISTRIBUTION

z	Area (percent)
0.0	0
0.1	8
0.2	16
0.4	30
0.50	38
0.58	44
0.67	50
0.80	58
1.00	68
1.25	79
1.50	87
1.65	90
1.75	92
2.00	95
2.25	98
3.00	99.7

HERE WILL BE A PICTURE OF THE NORMAL CURVE WITH SHADED MIDDLE AREA, JUST AS IN FPP ON PAGE A-105.

Some useful formulas for this quiz:

For a “box” with tickets of 0’s and 1’s:

$$\text{Box average} = (\text{fraction of 1})$$

$$\text{SD of box} = \sqrt{\text{fraction of 0} \times \text{fraction of 1}}$$

For a number of draws, with replacement, from any “box”:

$$\text{EV of sum} = (\text{number of draws}) \times (\text{box average})$$

$$\text{EV of average} = (\text{EV of sum})/(\text{number of draws}) = \text{box average.}$$

$$\text{SE of sum} = \sqrt{\text{number of draws}} \times (\text{SD of box})$$

$$\text{SE of average} = (\text{SE of sum})/(\text{number of draws}) = (\text{SD of box})/\sqrt{\text{number of draws}}$$

For a “box” with tickets of 0’s and 1’s:

The sum is the count of 1’s in the draws made.

The average is the proportion of 1’s in the draws made.

Also: $\sqrt{0.2 \times 0.8} = 0.4$, $\sqrt{100} = 10$.