invnorm(area, 0, 1)

Ex. 2: The Wechler Adult Intelligence Test Scale is composed of a number of subtests. On one subtest, the raw scores have a mean of 35 and a standard deviation of 6. Assuming the raw scores form a normal distribution:

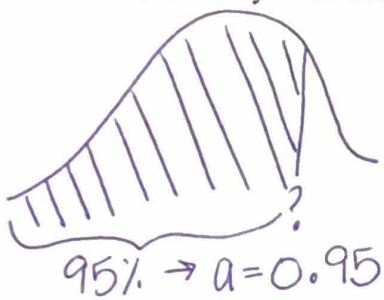
a. What percentage of raw scores are between 31 and 41?

$z = \frac{31-35}{6} = -0.67$ (LB)

$z = \frac{41-35}{6} = 1$ (UB) $\rightarrow$ **59%**

b. What score represents the 95th percentile?

** Hint: Can you do this by hand or do you have to use your calculator?



$z = 1.64$

$1.64 = \frac{x-35}{6}$

$x = 44.84$

Steps % → data

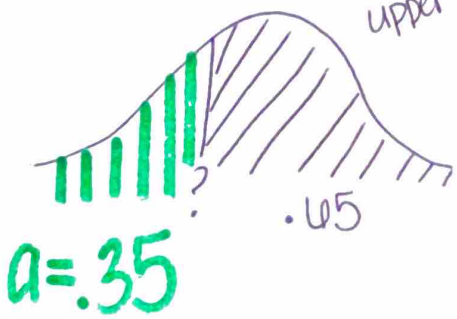
① find area (always dec. always from left)

② invnorm to get z-score

③ find data w/ z-score equation

$z = \frac{\text{data} - \text{mean}}{SD}$

c. What score represents the 65% percentile?

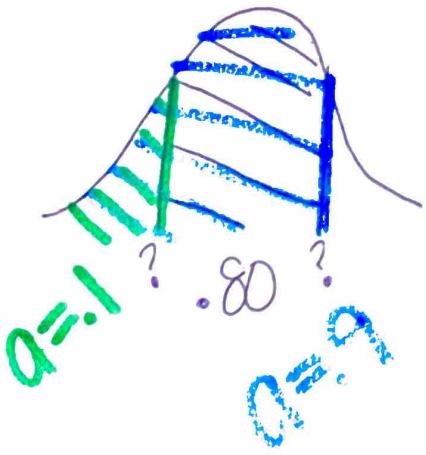


$z = -0.39$

$-0.39 = \frac{x-35}{6}$

$x = 32.66$

d. What scores represent the middle 80%?



$z = -1.28$

$-1.28 = \frac{x-35}{6}$

$x = 27.32$

$z = 1.28$

$1.28 = \frac{x-35}{6}$

$x = 42.68$

scores between 27.32 & 42.68