Chapter 6.e - Finding Normal Percentiles

1) Questions about p. 129c assignment

2) Reminder of Z-Score to Percent

3) Notes 6.e : Percent to Z-score

4) Assignment Time [Use It!!]

5) In-class Quiz

From Z-score to Percent
-if z isn't a whole number

Question??
With N(10, 2),
what is the percent of data that falls below the data point 14

\[ z = \frac{y - \mu}{\sigma} = \frac{14 - 10}{2} = 2 \]

97.5% is above

what is the percent of data that falls above the data point 13

\[ z = \frac{13 - 10}{2} = 1.5 \]

Since the model is Normal, we can specifically calculate from the z-value

1) Calculate the z-score
2) Use calculator or z-table to convert to percent
3) Answer question properly (above or below?)
From Percent to z-score

Question??
With \( N(10, 2) \),

what is the data value that has 45\% of the data below it?

Since the model is Normal, we can specifically calculate from the percent
1) find the z-value from the percent using calculator or z-table
2) Use mean and SD to convert z-score to data point
3) Make sure answer makes sense!
From Percent to z-score

Question??

With $N(10, 2)$,

what is the data value that has 75% of the data above it?

The 68 - 95 - 99.7 Rule

in a Normal Model

68% of the data is within 1 SD to each side of the mean
95% of the data is within 2 SD to each side of the mean
99.7% of the data is within 3 SD to each side of the mean

[almost all]

REMEMBER : These are based on the Normal Model, not data
Assignment (Due Thursday 10/2/15)

1) Pg. 129c, #23-29, 31, 32, 35

2) Pg. 129d, #37-46

3) Read Chapter 6, Pg. 124-126

4) How did you do on the Practice Quiz (real one is tomorrow!)