Use $z$-scores for Exercises 1 and 2.

1. IQ scores are $N(100, 15)$ points.
   (i) What range of measurements give 95% of IQ scores?
   (ii) What range of measurements give 98% of IQ scores?

2. Baby birth lengths are $N(20, 0.6)$ inches.
   (i) What range of measurements give 90% of baby birth lengths?
   (ii) What range of measurements give 99% of baby birth lengths?

3. IQ scores are $X \sim N(100, 15)$ pts and baby birth lengths are $Y \sim N(20, 0.6)$ inches.
   Convert the following values to a standard normal scale, and then explain which value is more extreme:
   
   an IQ score of $X = 125$ pts or a baby birth length of $Y = 18.5$ in.