

$$3) P(71.3'' < x < 76.9'') = P(0.77 < z < 2.63)$$

$$= .9957 - .7794 = \underline{\underline{0.2163}}$$

$$\mu = 69'', \sigma = 3''$$

$$x = 71.3, z = \frac{x - \mu}{\sigma}$$

$$z = \frac{71.3 - 69}{3} = 0.77$$

$$x = 76.9'', z = \frac{x - \mu}{\sigma}$$

$$z = \frac{76.9 - 69}{3} = 2.63$$

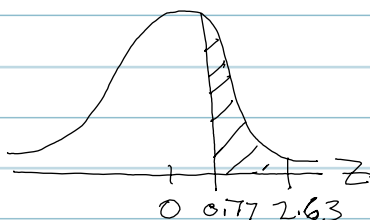


TABLE A1

z	→ .07
0.7	→ .7794

TABLE A1

z	→ .03
2.6	→ .9957

4) What adult Male height is the 99th percentile?

Table A1

z	→ .03
2.3	← .9901

$$z = 2.33 \quad \left(\begin{array}{l} \text{99th percentile} \\ \text{z-score} \end{array} \right)$$

$$x = z\sigma + \mu = 2.33 \cdot 3 + 69 = 75.99'' \approx 76''$$

Converting
from z-to-x

5) What adult Male height is the 94th percentile?

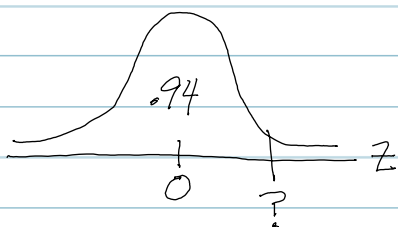


Table A1

z	→ .05	→ .06
1.5	← .9394	← .9406

$$* \rightarrow z = 1.555 \quad (\text{average})$$

$$x = z\sigma + \mu = 1.555(3) + 69 = 73.665 \rightarrow 73.67$$