

Heights of Women

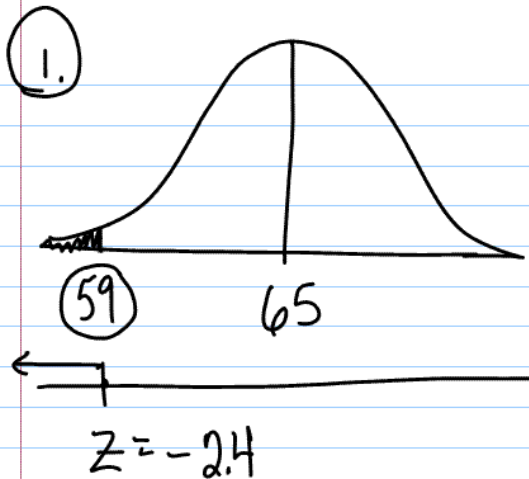
Note Title

9/24/2008

$$N(65, 2.5)$$

①. What percentile is 4 foot 11 inches?

②. How tall is the 95th percentile?



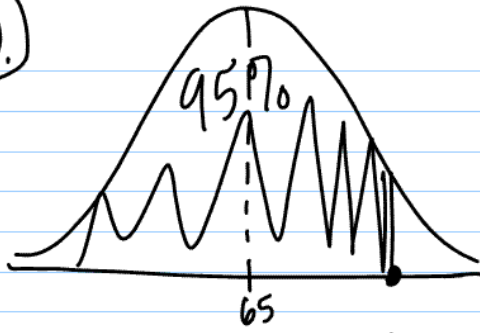
$$z = \frac{59 - 65}{2.5}$$

$$= -2.4$$

Table value = 0.0082

Answer = .82%

(2)



0.9495

 $z = 1.64$

0.9505

 $z = 1.65$

1.645

 $z = 1.645$

$$65 + 1.645(2.5)$$

$$= 69.125 \text{ inches}$$

$$z = \frac{y - \mu}{\sigma}$$

$$1.645 = \frac{y - 65}{2.5}$$

$$y = 69.125 \text{ inches}$$