1) Z = 700 – 532/ 119 = 1.74 🡺.9591 = 95th percentile

2. Z = 700 – 499 / 113 = 1.78 🡺 .9625 = 96th percentile

3. Different standard deviations

4. 60th percentile 🡺 z = .25 = x – 498 / 116 🡺 x = 527

5. 95th percentile 🡺 z = 1.65 = x – 494 / 112 🡺 x = 678.8

6. Between the 30th and 70th percentiles.

30th percentile 🡺 z = -1.88 = x – 532 / 119 🡺 x = 308.28

70th percentile 🡺 z = 1.88 = x – 532 / 119 🡺 x = 755.72

 Between 308.28 and 755.72

7. Between the 10th and 90th percentiles.

10th percentile 🡺 z = -1.28 = x – 499 / 113 🡺 x = 354.36

90th percentile 🡺 z = 1.28 = x – 499 / 113 🡺 x = 643.64

 Between 354.36 and 643.64

8. Between 500 and 600

500 🡺 z = 500 – 493 / 116 = .0603 🡺.5239 = 52nd percentile

600 🡺 z = 600 – 493 / 116 = .9224 🡺 .8212 – 82nd percentile

 1. Between 52 and 82 percent = 30% of females.

9. Between 550 and 600

550 🡺 z = 550 – 481 / 115 = .60 🡺 .7257 = 73rd percentile

600 🡺 z = 600 – 481 / 115 = 1.03 🡺 .8485 = 85th percentile

 2. Between 73 and 85 percent = 12% of males

10. Between 400 and 600

400 🡺 z = 400 – 493 / 112 = -.83 🡺 .2033 = 20th percentile

600 🡺 z = 600 – 493 / 112 = .96 🡺 .8315 = 83rd percentile

 Between 20 and 83 percent = 63% of females

11. Between 300 and 400

300 🡺 z = 300 – 498 / 116 = -1.71 🡺 .0436 = 4th percentile

400 🡺 z = 400 – 498 / 116 = -.84 🡺 .2005 = 20th percentile

 Between 4 and 20 percent of males = 16% of males

12. Z = 700 – 498 / 116 = 1.74 🡺 .9591 = 96th percentile / 96% 🡺 4% of males

1. Z = 600 – 493 / 113 = .95 🡺 .8289 = 83rd percentile / 83% 🡺 17% of females
2. 8th percentile 🡺 z = -1.41 = 65.5 – 69 / σ 🡺 σ = 2.48 in
3. 67th percentile 🡺 z = .44 = 88 – 87 / σ 🡺 σ = 2.27 points