

Statistics S5: Normal Distributions and z-scores

Assume all data sets are normally distributed.

1. Given  $\mu = 100$  and  $\sigma = 5$ , what percent is greater than 100?
2. Given  $\mu = 100$  and  $\sigma = 5$ , what percent is between 90 and 110?
3. Given  $\mu = 150$  and  $\sigma = 10$ , what percent is between 130 and 160?
4. Given  $\mu = 86$  and  $\sigma = 4$ , what percent is greater than 82?
5. Given  $\mu = 144$  and  $\sigma = 12$ , what percent is less than 135?
6. Given  $\mu = 95$  and  $\sigma = 10$ , what percent is greater than 90?
7. Given  $\mu = 120$  and  $\sigma = 16$ , what percent is greater than 130?
8. Given  $\mu = 100$  and  $\sigma = 10$ , what percent is between 87 and 95?
9. Given  $\mu = 77$  and  $\sigma = 4$ , what percent is between 70 and 81?
10. Given  $\mu = 77$  and  $\sigma = 4$ , what percent is between 80 and 85?