**Quiz on z-Scores and Probabilities**

1. The following scores were obtained as part of a sample with mean 10 and standard deviation 2. For each score, find the appropriate z-score:
2. X = 14: z =
3. X = 8: z =
4. Use the table in the appendix, page 592 of the book, to find the given probabilities. *Note: the numbers in the table might not give you the probabilities directly. You might need to draw a suitable picture.*
5. $P\left(z>2.0\right)$
6. $P(z<1)$

3. Each score listed below comes from a sample with the indicated mean and standard deviation. Convert each one to a z-score and find the indicated probability:

1. X has mean 5, standard deviation 4. Find $P(x>8)$
2. X has mean 3, standard deviation 2. Find $P(1.2<x<4.5)$
3. X has mean 75, standard deviation 12. Find $P(80<x<100)$