Normal Probability Distribution Worksheet

IQ Scores

IQ scores are normally distributed with a mean of 100 and a standard deviation of 15. If you select a person at random, what's then probability the person has an IQ score that is:

Approximate your answers to the nearest thousandths.

1. Less than 85?
2. At least 105?
3. Between 85 and 105?
4. More than 120?
5. No more than 130?
6. Between 108 and 128?

California Life Expectancy

California residents have a mean lifespan of 81.8 years with a standard deviation of 7.2 years. If you select a California resident at random, what's the probability the California resident lives:

Approximate your answers to the nearest thousandths.

7. At least 75 years?
8. Between 72 and 87 years?
9. Between 60 and 68 years?
10. Less than 70 years?
11. More than 100 years?
12. Between 62 and 75 years?

Height of Women

The height of women is normally distributed with a mean of 63.7 inches and a standard deviation of 2.9 inches. If you select a woman at random, what's the probability a woman will be:

Approximate your answers to the nearest thousandths.

13. Between 60 and 70 inches?
14. Between 50 and 62 inches?
15. At least 70 inches?
16. Between 65 inches and 72 inches?
17. More than 68 inches?
18. No more than 58 inches?

Height of Men

The height of women is normally distributed with a mean of 68.6 inches and a standard deviation of 2.8 inches. If you select a man at random, what's the probability the man will be:

Approximate your answers to the nearest thousandths.

19. More than 72 inches?
20. Between 68 and 78 inches?
21. At least 74 inches?
22. Between 62 and 66 inches?
23. Less than 63 inches?
24. Between 70 and 74 inches?

SAT Scores (Scholastic Aptitude Test)

SAT scores are normally distributed with a mean of 1026 and a standard deviation of 209. What percent of students who take the SAT will score:

Approximate your answers to the nearest thousandths.

25. At least 1350?
26. More than 1500?
27. Between 1200 and 1600?
28. Between 800 and 1000?
29. Between 925 and 1250?
30. Less than 1100?