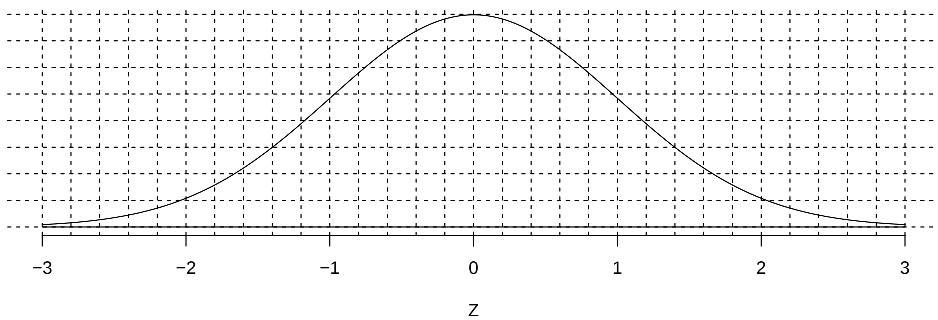
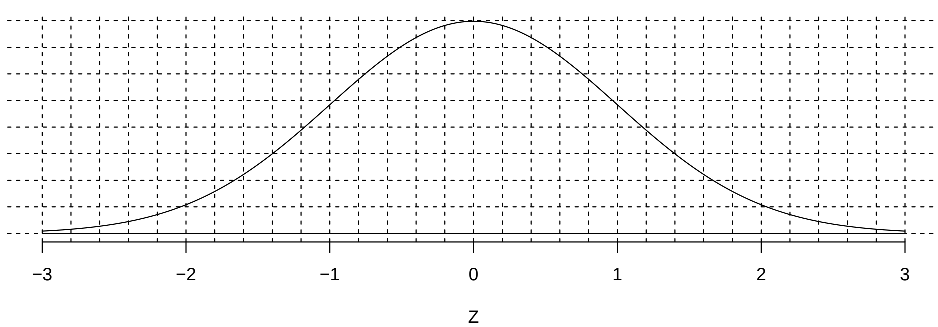
1. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



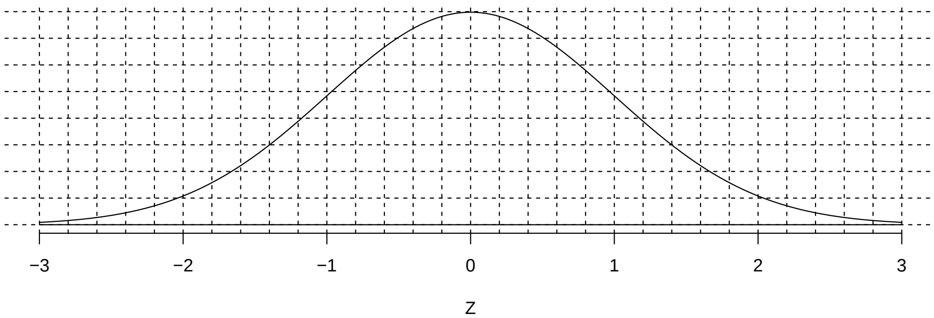
(a) Estimate $P(Z < 0.6)$ by shading and counting.
(b) Determine $P(Z < 0.6)$ by using the z-table.

2. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



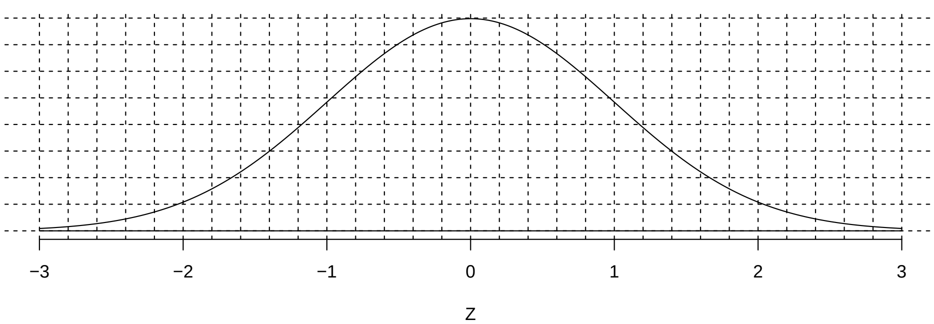
(a) Estimate $P(Z > 0)$ by shading and counting.
(b) Determine $P(Z > 0)$ by using the z-table.

3. **Problem**
   The figure below shows the standard normal density. Each grid square represents 1% of probability.



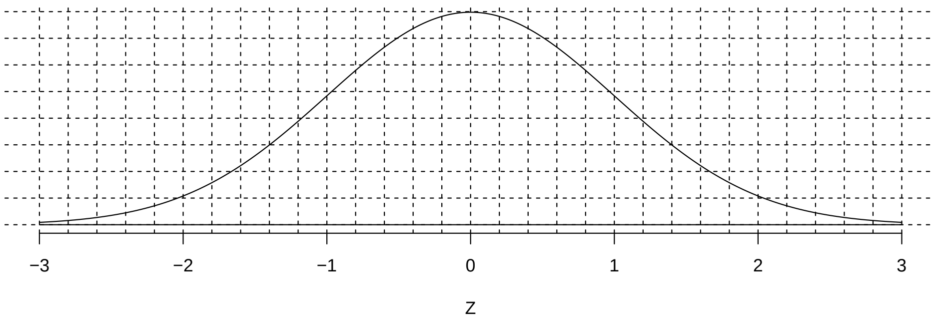
   (a) Estimate $P(|Z| < 1.2)$ by shading and counting.
   (b) Determine $P(|Z| < 1.2)$ by using the z-table.

4. **Problem**
   The figure below shows the standard normal density. Each grid square represents 1% of probability.



   (a) Estimate $P(|Z| > 1.6)$ by shading and counting.
   (b) Determine $P(|Z| > 1.6)$ by using the z-table.

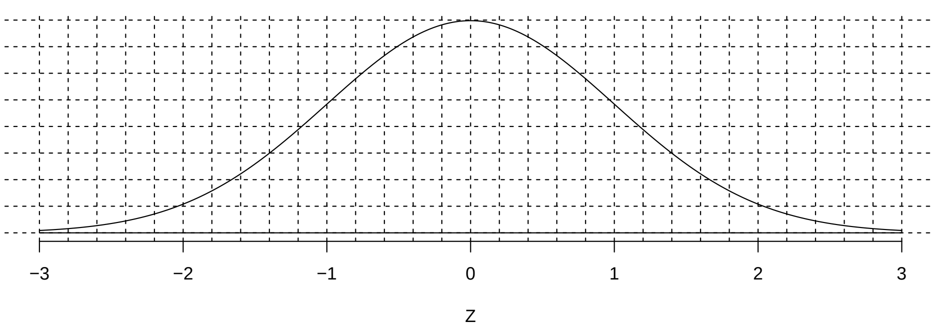
5. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



(a) Estimate z such that $P(Z < z) = 0.12$ by shading and counting.

(b) Determine z such that $P(Z < z) = 0.12$ by using the z-table.

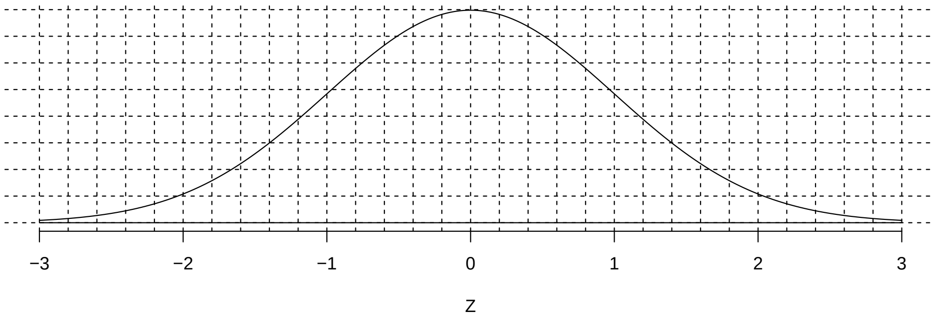
6. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



(a) Estimate z such that $P(Z > z) = 0.66$ by shading and counting.

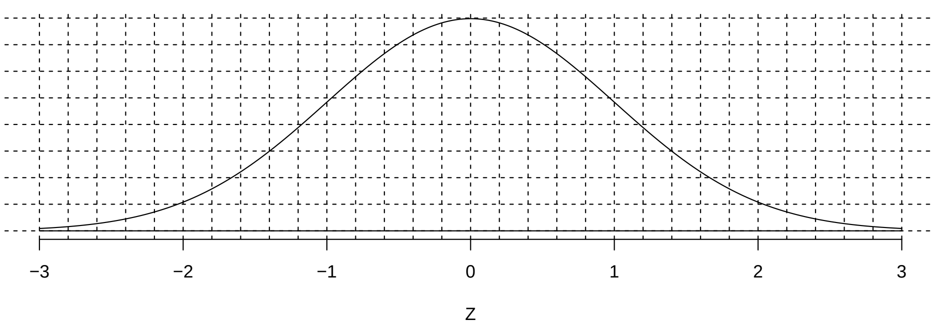
(b) Determine z such that $P(Z > z) = 0.66$ by using the z-table.

7. **Problem**
   The figure below shows the standard normal density. Each grid square represents 1% of probability.



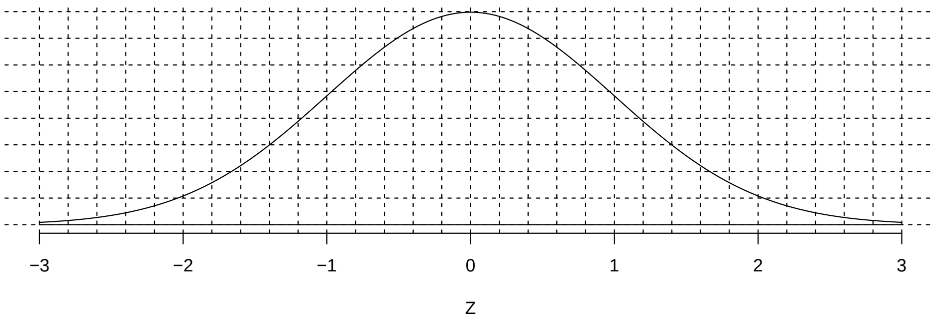
   (a) Estimate z such that $P(|Z| < z) = 0.84$ by shading and counting.
   (b) Determine z such that $P(|Z| < z) = 0.84$ by using the z-table.

8. **Problem**
   The figure below shows the standard normal density. Each grid square represents 1% of probability.



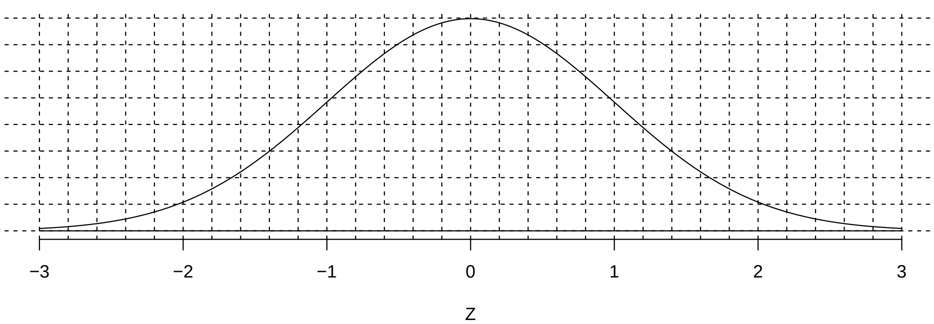
   (a) Estimate z such that $P(|Z| > z) = 0.16$ by shading and counting.
   (b) Determine z such that $P(|Z| > z) = 0.16$ by using the z-table.

9. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



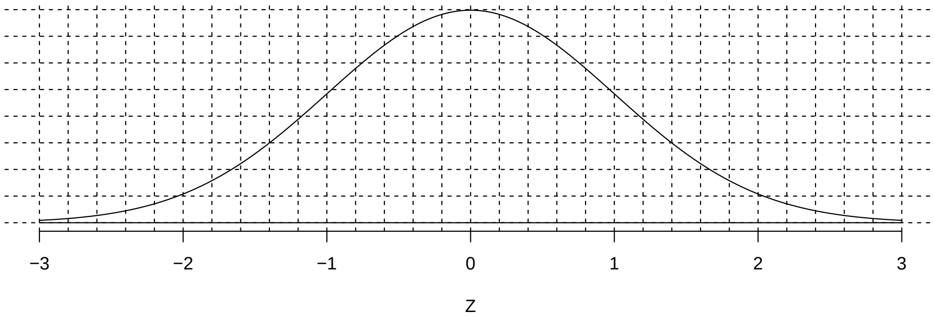
(a) Estimate $P(|Z| < 1)$ by shading and counting.
(b) Determine $P(|Z| < 1)$ by using the z-table.

10. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



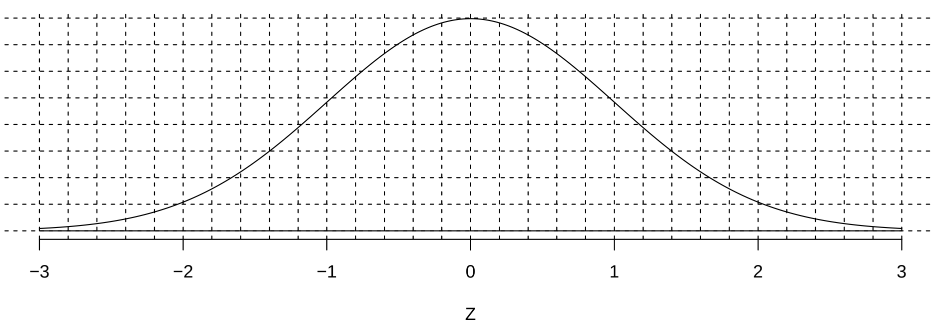
(a) Estimate $P(Z > -0.6)$ by shading and counting.
(b) Determine $P(Z > -0.6)$ by using the z-table.

11. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



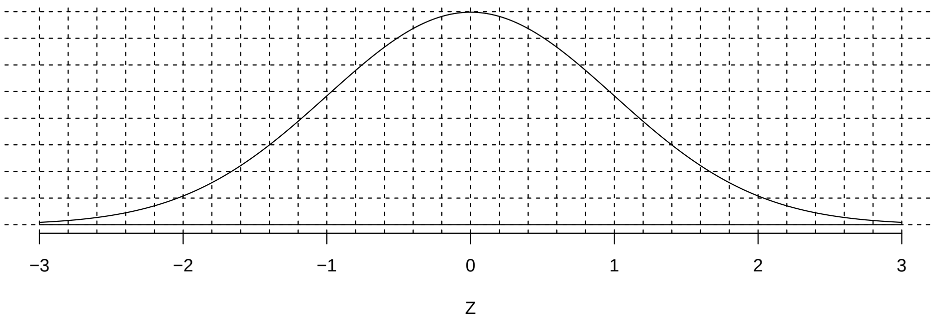
(a) Estimate z such that $P(Z > z) = 0.16$ by shading and counting.
(b) Determine z such that $P(Z > z) = 0.16$ by using the z-table.

12. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



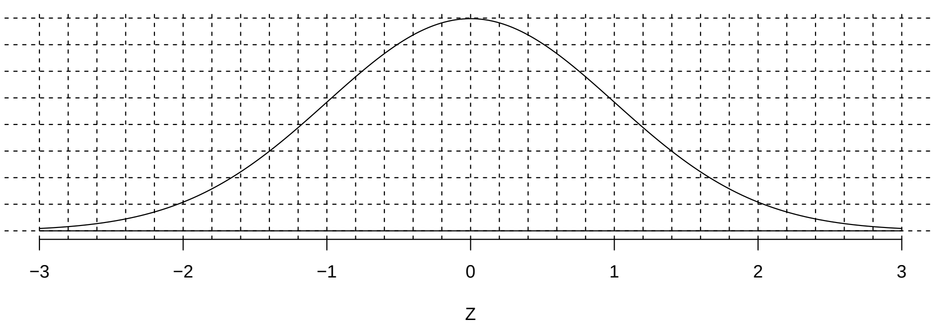
(a) Estimate $P(Z < 1.2)$ by shading and counting.
(b) Determine $P(Z < 1.2)$ by using the z-table.

13. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



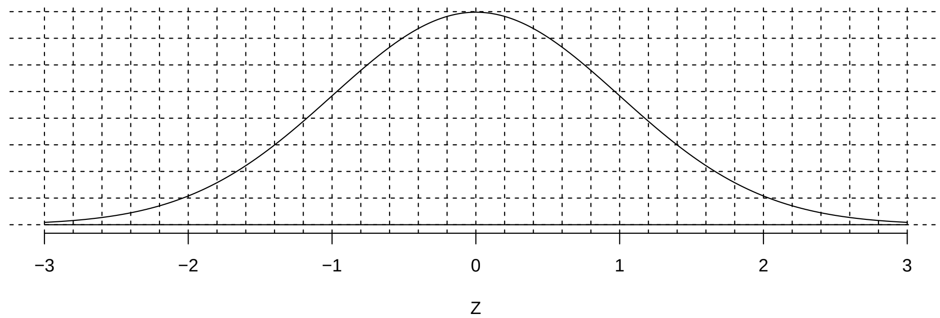
(a) Estimate z such that $P(Z < z) = 0.27$ by shading and counting.
(b) Determine z such that $P(Z < z) = 0.27$ by using the z-table.

14. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



(a) Estimate z such that $P(|Z| > z) = 0.69$ by shading and counting.
(b) Determine z such that $P(|Z| > z) = 0.69$ by using the z-table.

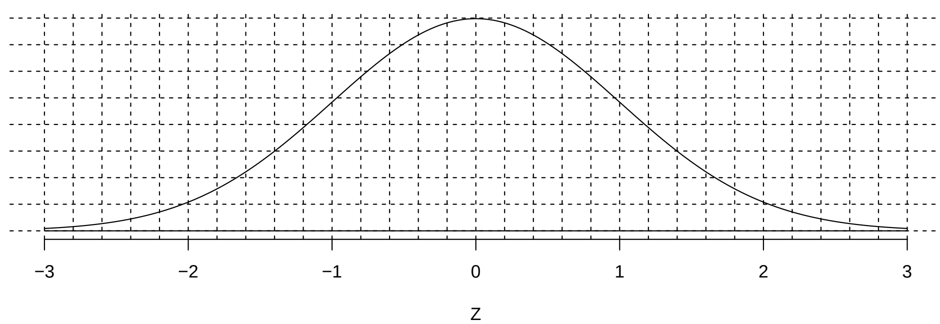
15. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



(a) Estimate $P(|Z| > 0.8)$ by shading and counting.

(b) Determine $P(|Z| > 0.8)$ by using the z-table.

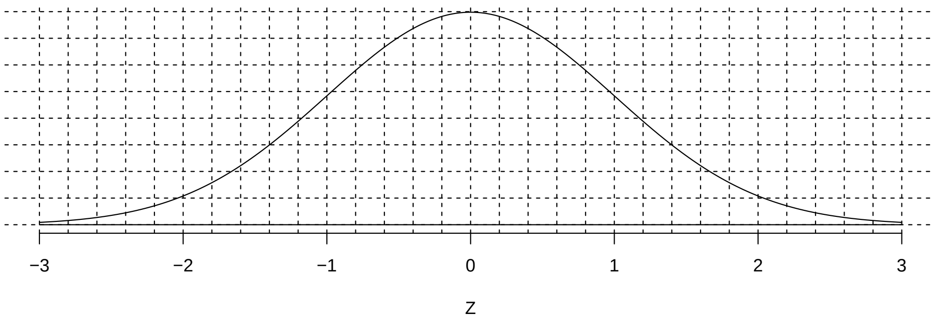
16. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



(a) Estimate z such that $P(|Z| < z) = 0.77$ by shading and counting.

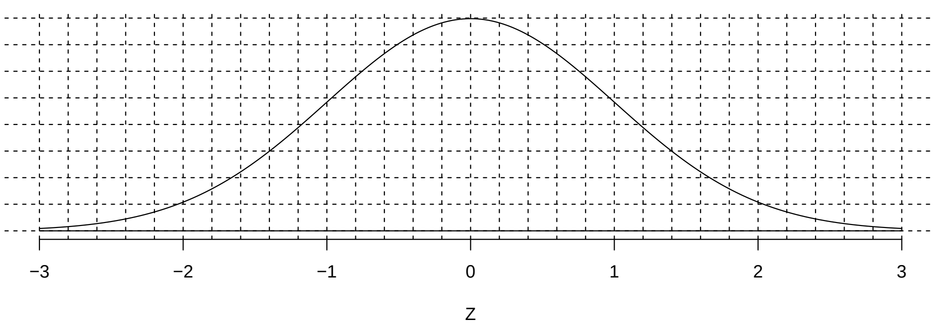
(b) Determine z such that $P(|Z| < z) = 0.77$ by using the z-table.

17. **Problem**
    The figure below shows the standard normal density. Each grid square represents 1% of probability.



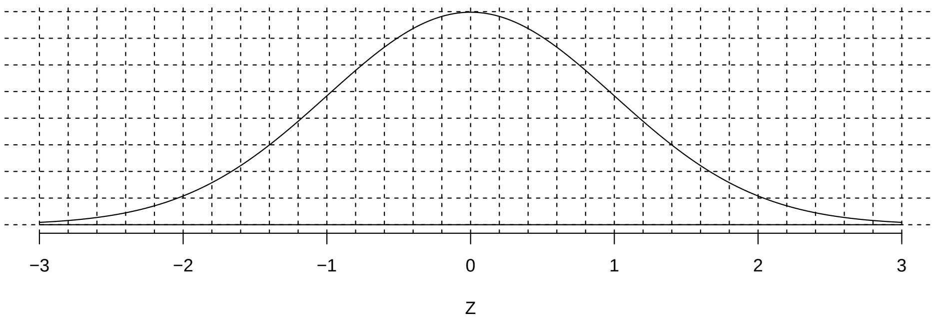
   (a) Estimate z such that $P(|Z| < z) = 0.16$ by shading and counting.
   (b) Determine z such that $P(|Z| < z) = 0.16$ by using the z-table.

18. **Problem**
    The figure below shows the standard normal density. Each grid square represents 1% of probability.



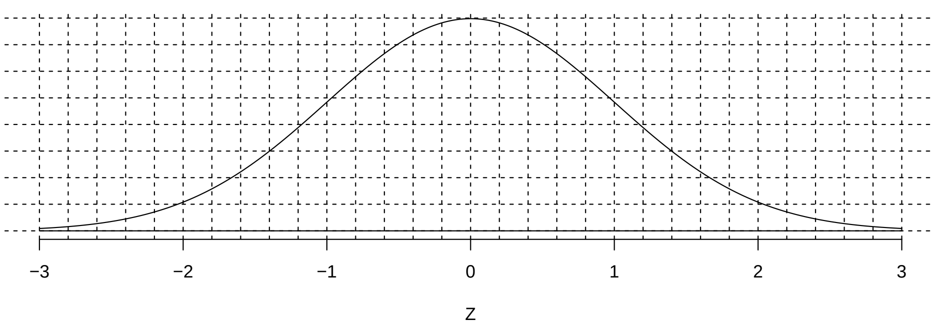
   (a) Estimate z such that $P(Z > z) = 0.92$ by shading and counting.
   (b) Determine z such that $P(Z > z) = 0.92$ by using the z-table.

19. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



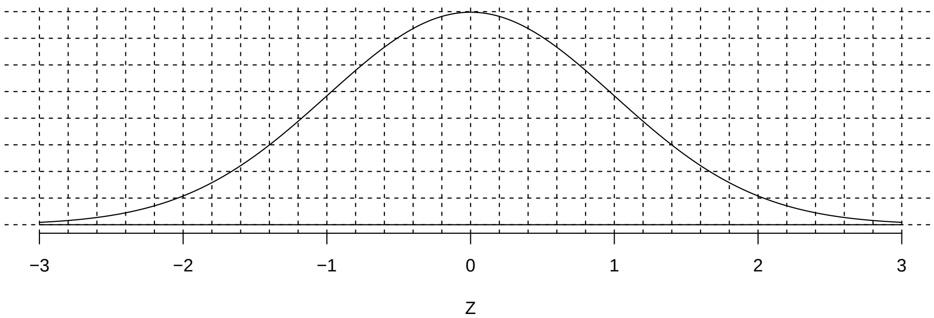
(a) Estimate z such that $P(Z < z) = 0.73$ by shading and counting.
(b) Determine z such that $P(Z < z) = 0.73$ by using the z-table.

20. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



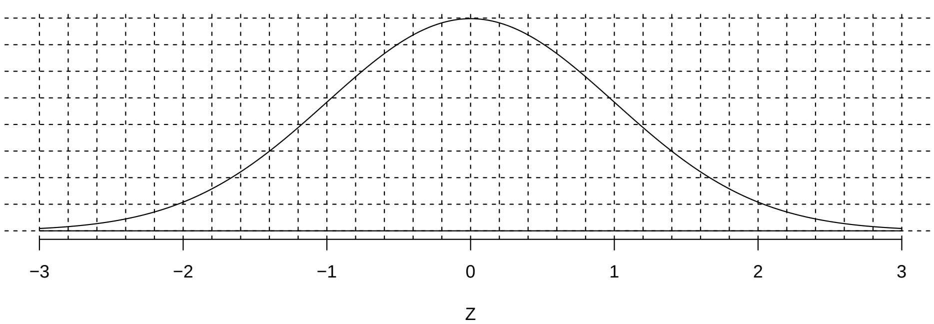
(a) Estimate $P(Z > 0.8)$ by shading and counting.
(b) Determine $P(Z > 0.8)$ by using the z-table.

21. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



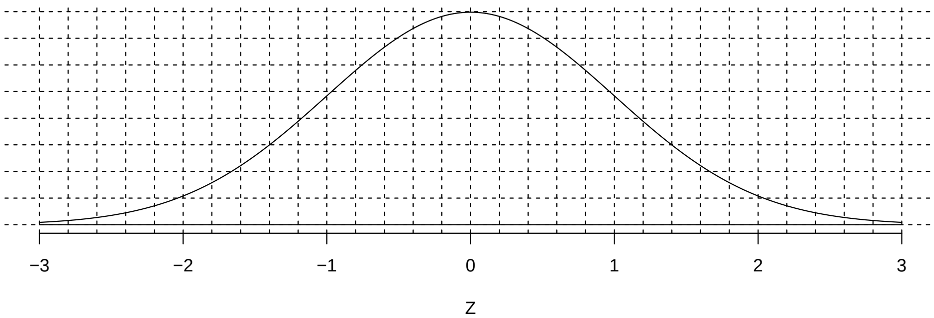
(a) Estimate $P(Z < 1.2)$ by shading and counting.
(b) Determine $P(Z < 1.2)$ by using the z-table.

22. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



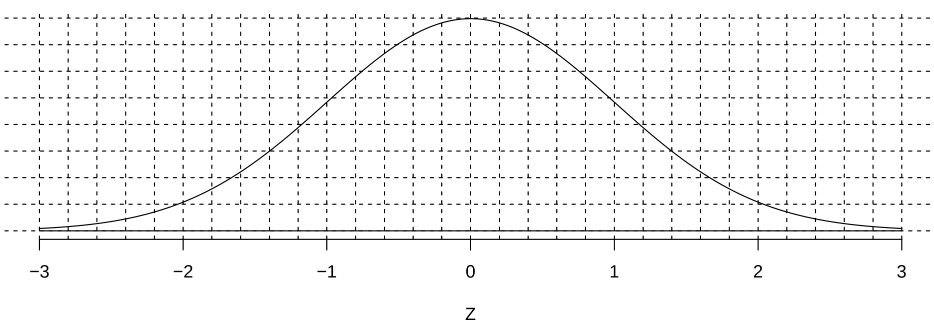
(a) Estimate $P(|Z| > 1)$ by shading and counting.
(b) Determine $P(|Z| > 1)$ by using the z-table.

23. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



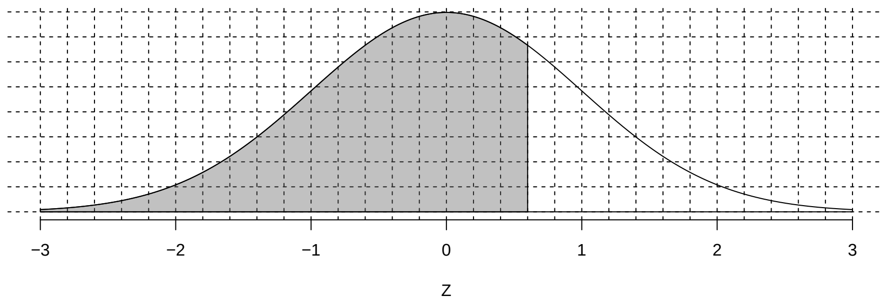
(a) Estimate $P(|Z| < 0.4)$ by shading and counting.
(b) Determine $P(|Z| < 0.4)$ by using the z-table.

24. **Problem**
The figure below shows the standard normal density. Each grid square represents 1% of probability.



(a) Estimate z such that $P(|Z| > z) = 0.55$ by shading and counting.
(b) Determine z such that $P(|Z| > z) = 0.55$ by using the z-table.

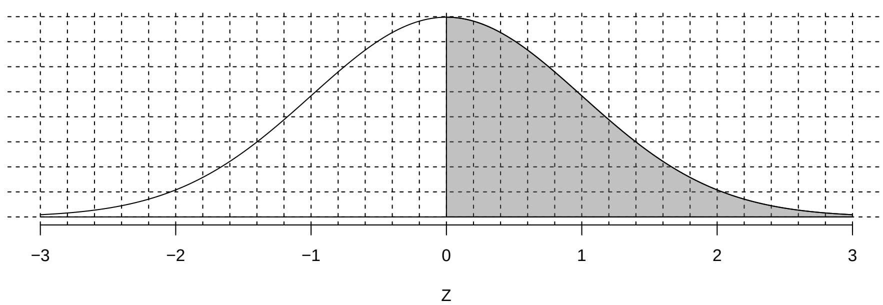
1. (a) The shaded region is shown below.



You should count about 73 shaded squares, giving a probability of about 0.73.

(b) The probability is 0.7257.

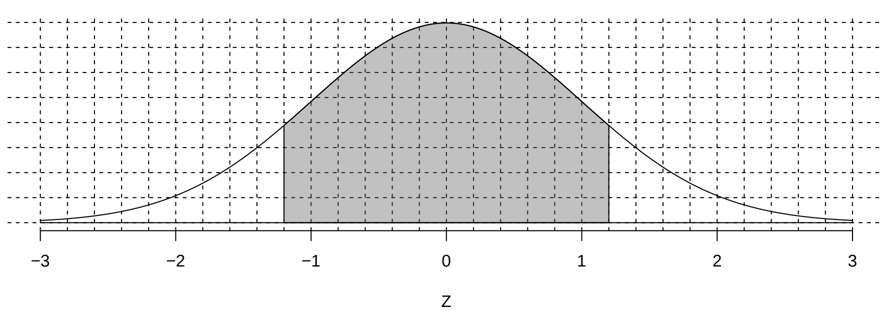
2. (a) The shaded region is shown below.



You should count about 50 shaded squares, giving a probability of about 0.5.

(b) The probability is 0.5.

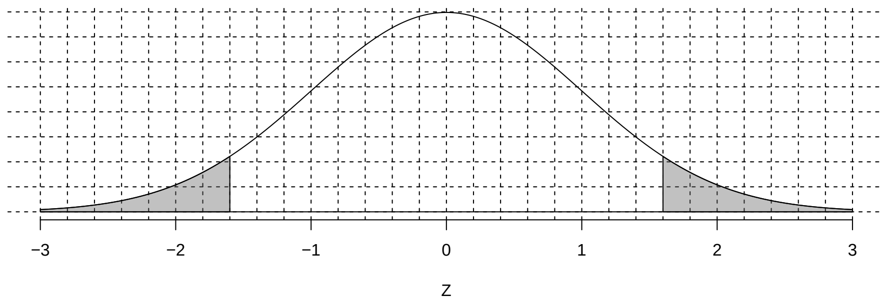
3. (a) The shaded region is shown below.



You should count about 77 shaded squares, giving a probability of about 0.77.

(b) The probability is 0.7699.

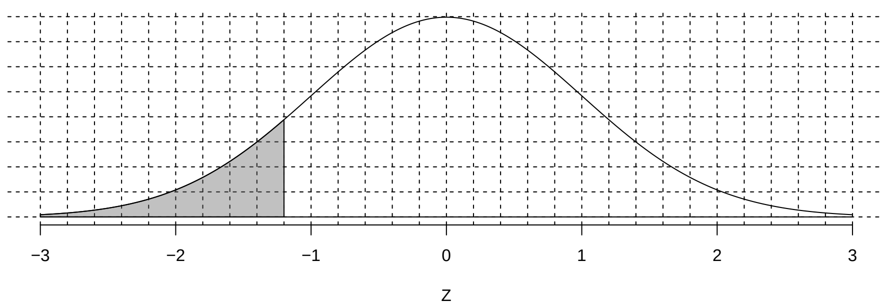
4. (a) The shaded regions are shown below.



You should count about 11 shaded squares, giving a probability of about 0.11.

(b) The probability is 0.1096.

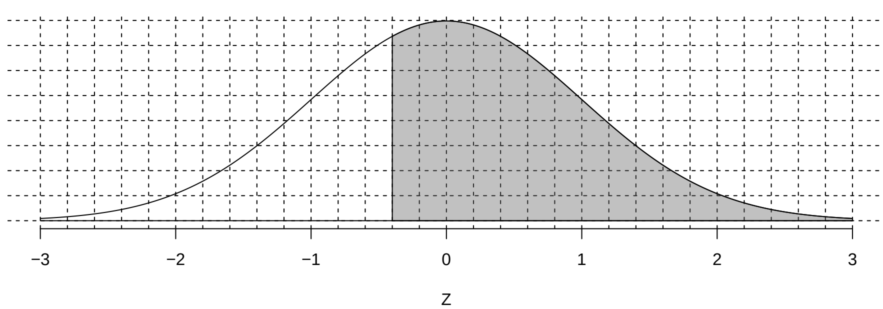
5. (a) The shaded region is shown below.



When you have shaded 12 squares, starting on the left, you should end around $z = -1.2$.

(b) $z \approx -1.2$

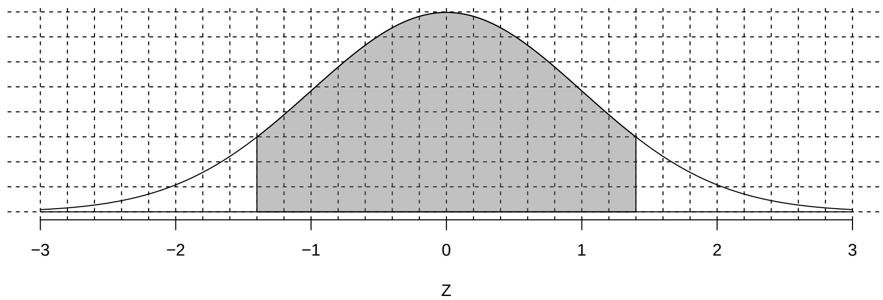
6. (a) The shaded region is shown below.



When you have shaded 66 squares, starting on the right, you should end around $z = -0.4$.

(b) $z = -0.4$

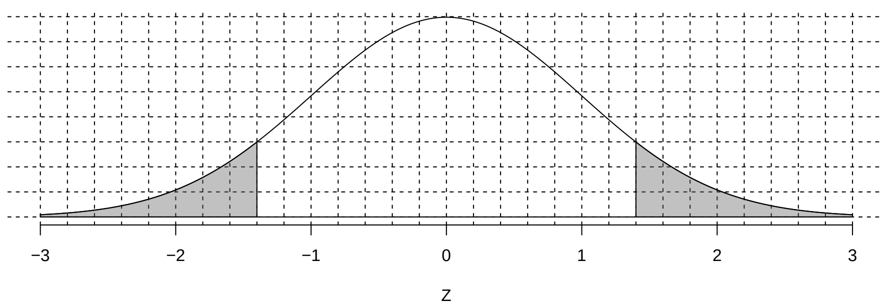
7. (a) The shaded region is shown below.



When you have shaded 84 squares, starting in the middle, you should end near $z = 1.4$.

(b) $z = 1.4$

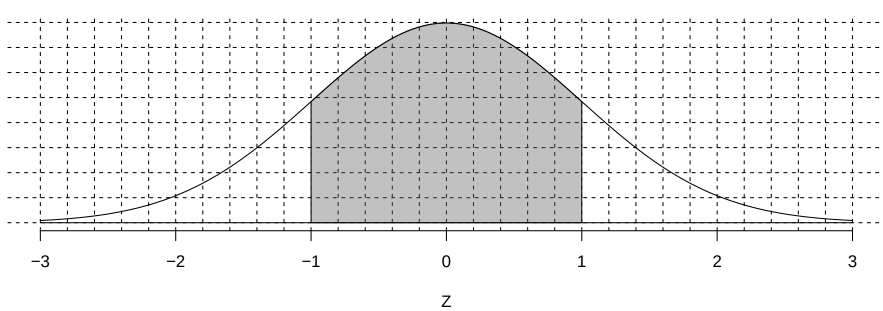
8. (a) The shaded regions are shown below.



When you have shaded 16 squares, starting at both tails, you should end near $z = 1.4$.

(b) $z = 1.4$

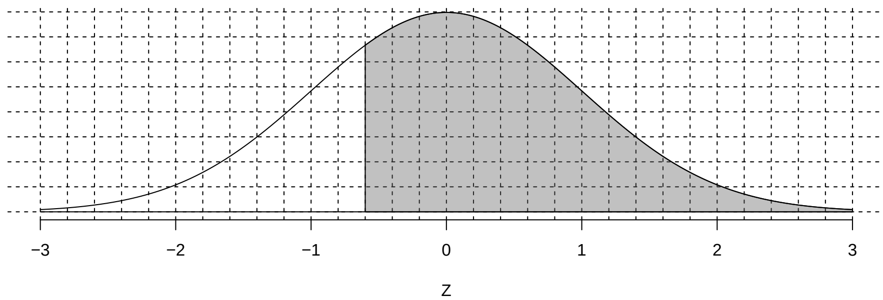
9. (a) The shaded region is shown below.



You should count about 68 shaded squares, giving a probability of about 0.68.

(b) The probability is 0.6827.

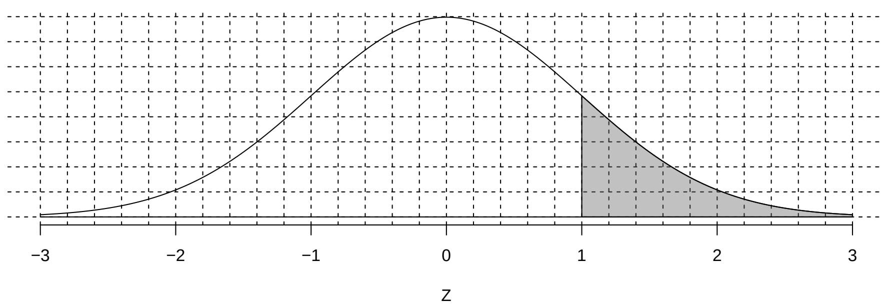
10. (a) The shaded region is shown below.



You should count about 73 shaded squares, giving a probability of about 0.73.

(b) The probability is 0.7257.

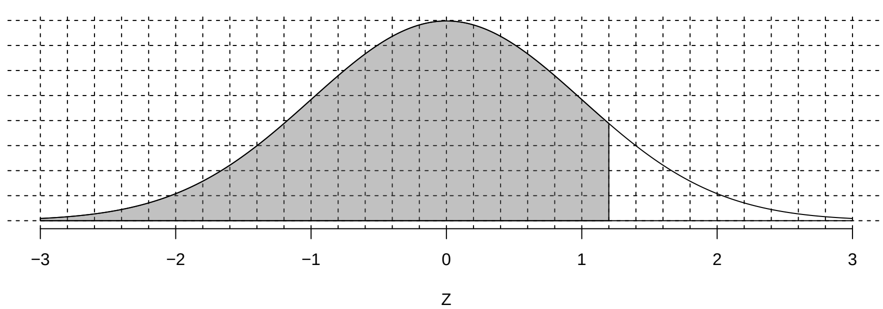
11. (a) The shaded region is shown below.



When you have shaded 16 squares, starting on the right, you should end around $z = 1$.

(b) $z = 1$

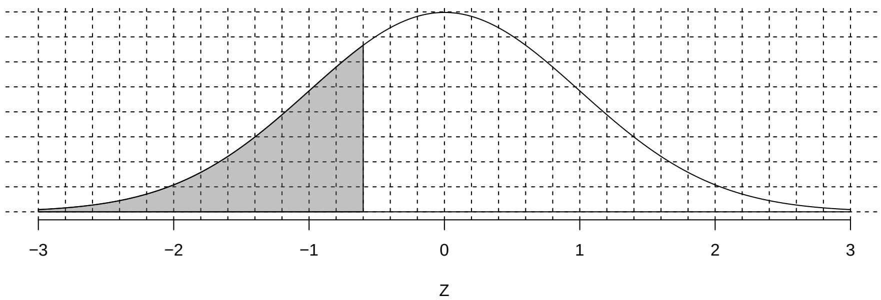
12. (a) The shaded region is shown below.



You should count about 88 shaded squares, giving a probability of about 0.88.

(b) The probability is 0.8849.

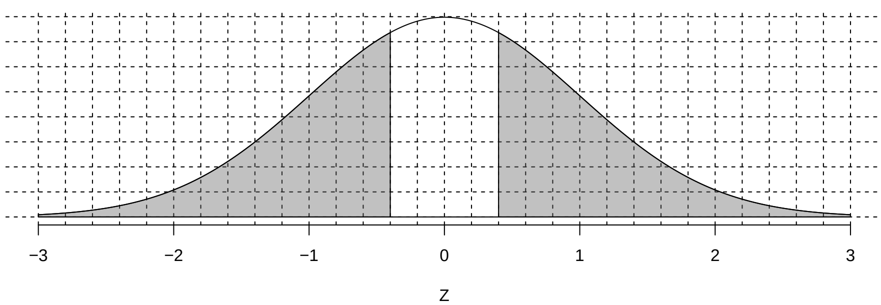
13. (a) The shaded region is shown below.



When you have shaded 27 squares, starting on the left, you should end around $z = -0.6$.

(b) $z \approx -0.6$

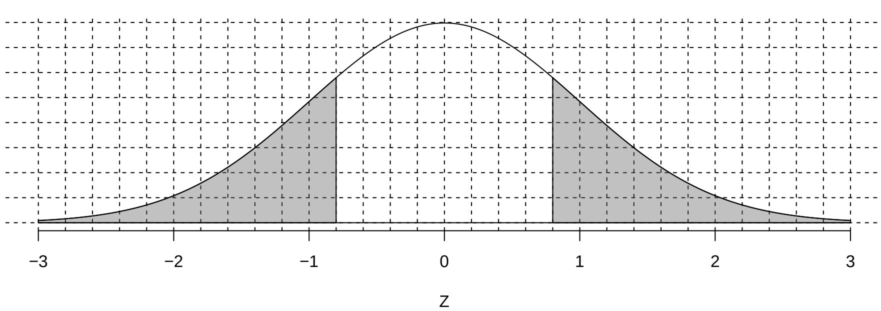
14. (a) The shaded regions are shown below.



When you have shaded 69 squares, starting at both tails, you should end near $z = 0.4$.

(b) $z = 0.4$

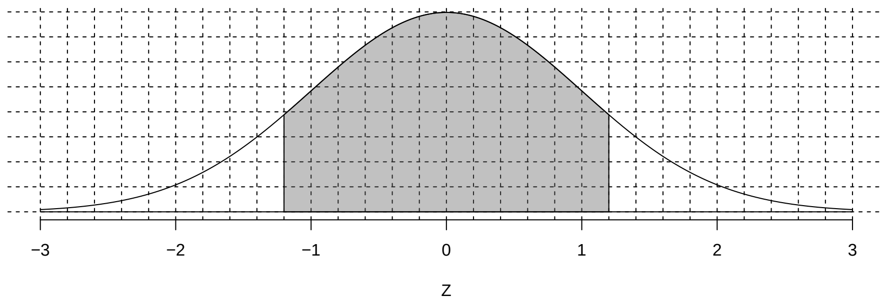
15. (a) The shaded regions are shown below.



You should count about 42 shaded squares, giving a probability of about 0.42.

(b) The probability is 0.4237.

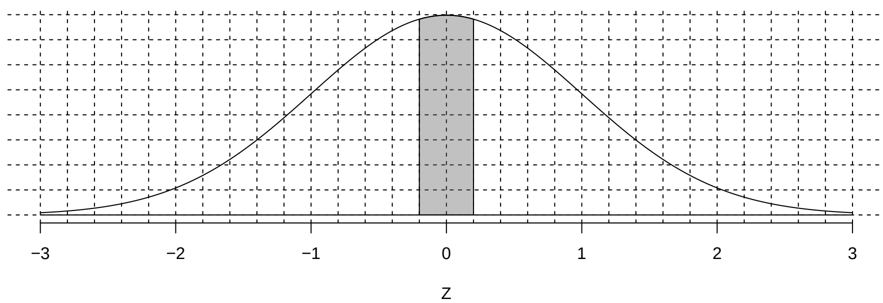
16. (a) The shaded region is shown below.



When you have shaded 77 squares, starting in the middle, you should end near $z = 1.2$.

(b) $z = 1.2$

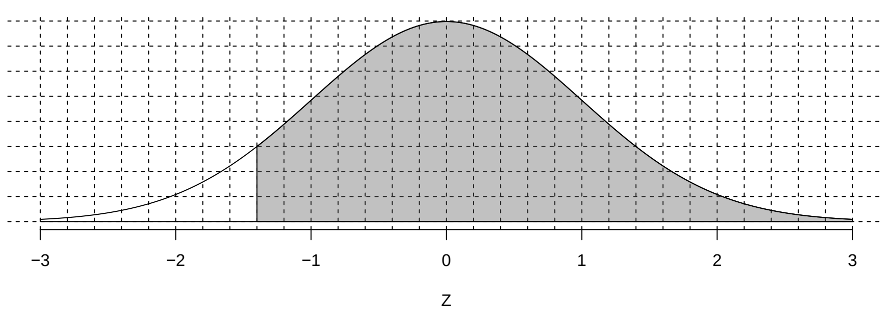
17. (a) The shaded region is shown below.



When you have shaded 16 squares, starting in the middle, you should end near $z = 0.2$.

(b) $z = 0.2$

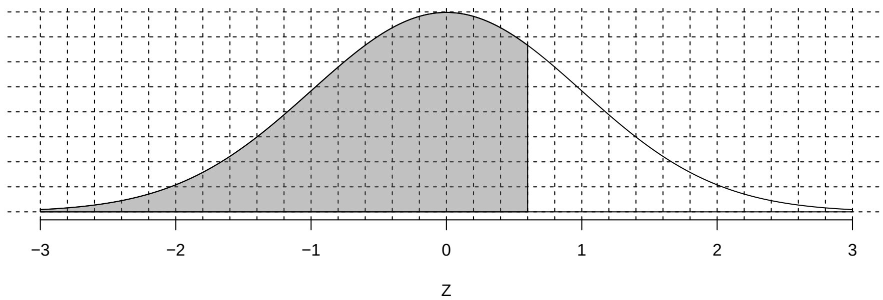
18. (a) The shaded region is shown below.



When you have shaded 92 squares, starting on the right, you should end around $z = -1.4$.

(b) $z = -1.4$

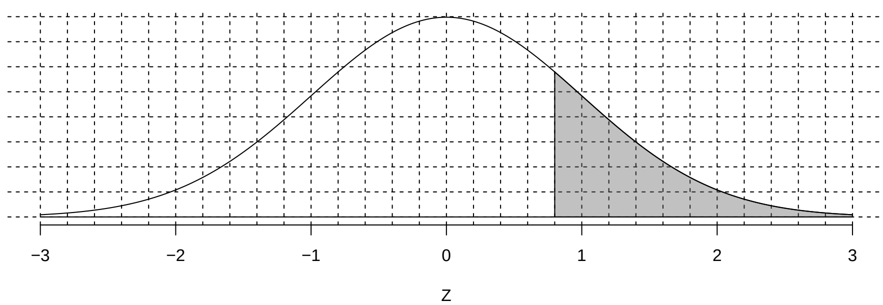
19. (a) The shaded region is shown below.



When you have shaded 73 squares, starting on the left, you should end around $z = 0.6$.

(b) $z \approx 0.6$

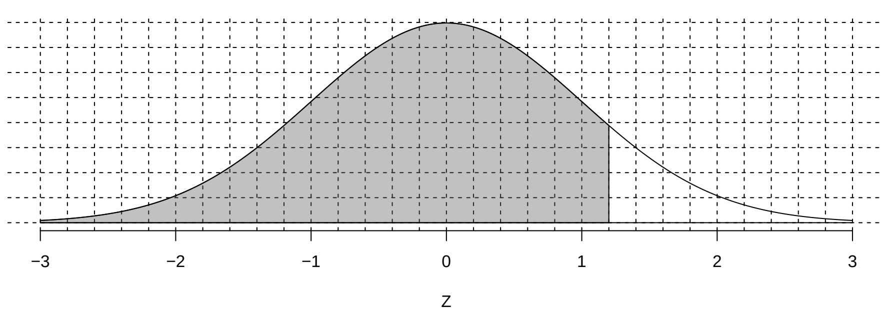
20. (a) The shaded region is shown below.



You should count about 21 shaded squares, giving a probability of about 0.21.

(b) The probability is 0.2119.

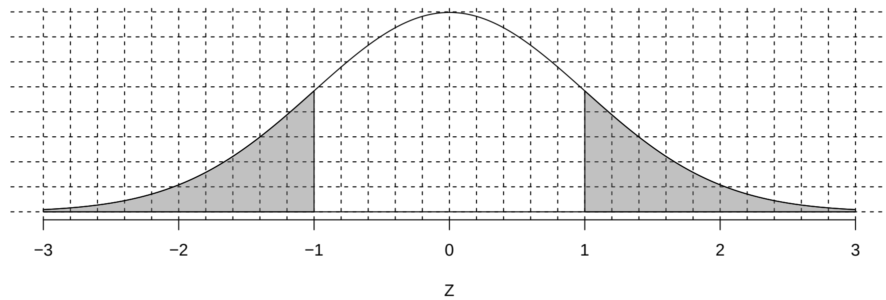
21. (a) The shaded region is shown below.



You should count about 88 shaded squares, giving a probability of about 0.88.

(b) The probability is 0.8849.

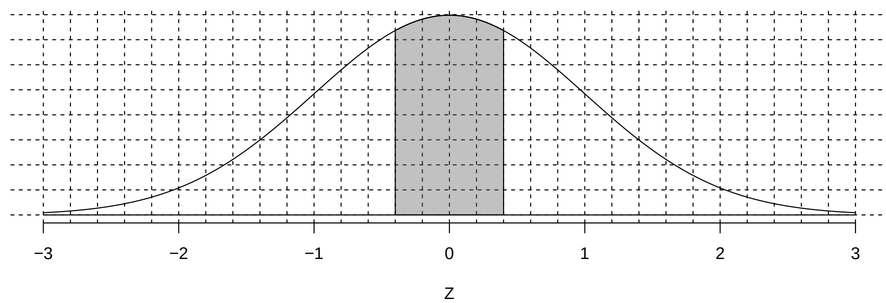
22. (a) The shaded regions are shown below.



You should count about 32 shaded squares, giving a probability of about 0.32.

(b) The probability is 0.3173.

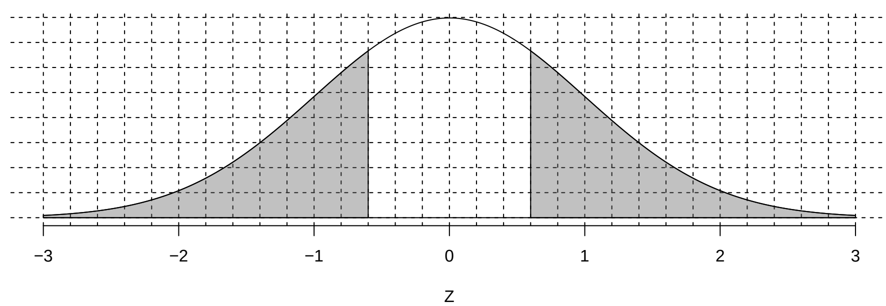
23. (a) The shaded region is shown below.



You should count about 31 shaded squares, giving a probability of about 0.31.

(b) The probability is 0.3108.

24. (a) The shaded regions are shown below.



When you have shaded 55 squares, starting at both tails, you should end near z = 0.6.

(b) $z = 0.6$