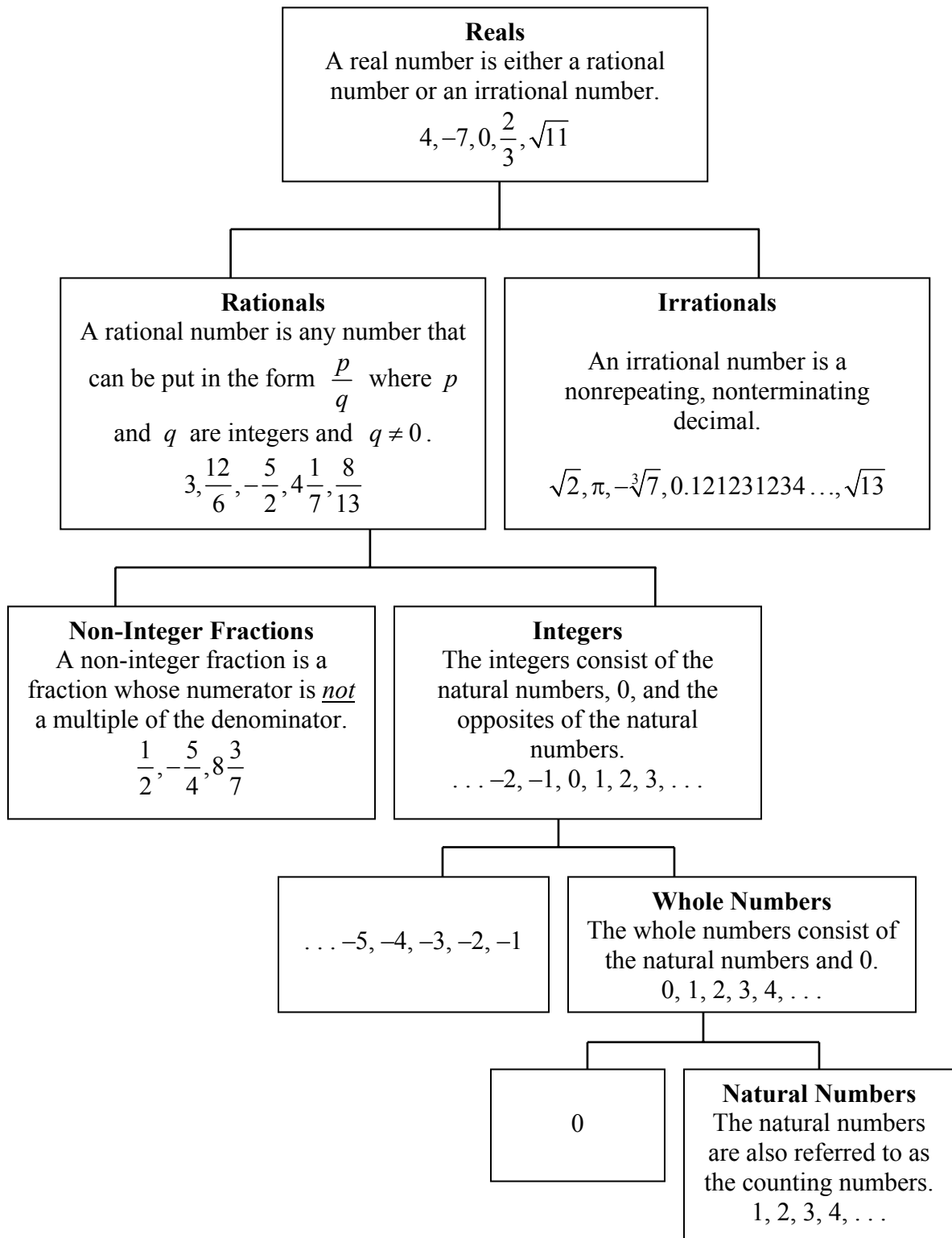
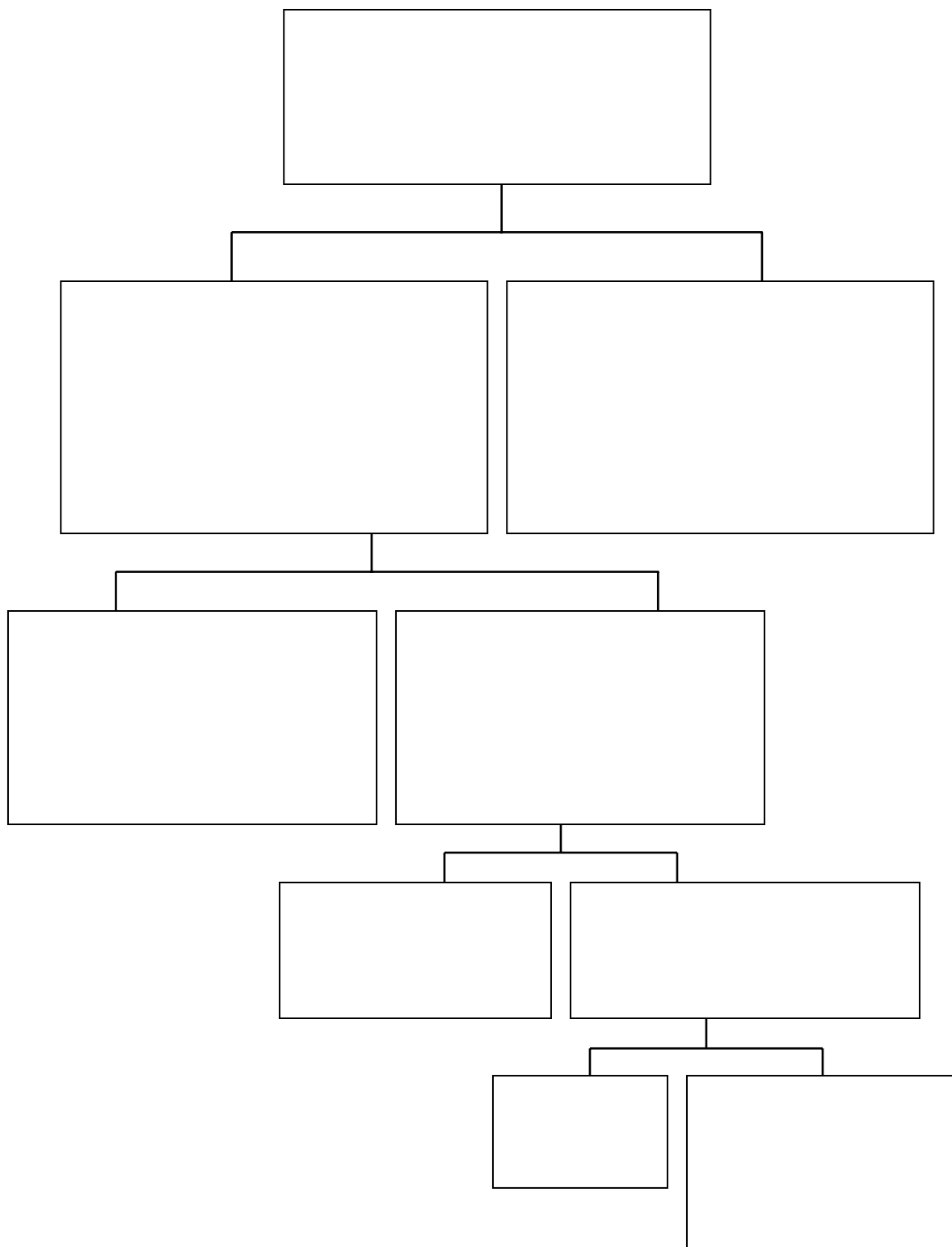


Sets of Numbers in the Real Number System



Real Number System Worksheet



The Number System

Identify the sets to which each of the following numbers belongs by marking an “X” in the appropriate boxes.

	Number	<u>N</u> atural Numbers	<u>W</u> hole Numbers	<u>I</u> ntegers	<u>R</u> ational <u>N</u> umbers	<u>I</u> rrational <u>N</u> umbers	<u>R</u> eal Numbers
1.	$-\sqrt{17}$						
2.	-2						
3.	$-\frac{9}{37}$						
4.	0						
5.	-6.06						
6.	$4.5\overline{6}$						
7.	$3.050050005\dots$						
8.	18						
9.	$\frac{-43}{0}$						
10.	π						
11.	$.63\overline{4}$						
12.	$\sqrt{225}$						
13.	$.634$						
14.	$\sqrt{\frac{4}{49}}$						
15.	$-\sqrt{64}$						

	Number	<u>N</u>atural Numbers	<u>W</u>hole Numbers	<u>I</u>ntegers	<u>R</u>ational <u>N</u>umbers	<u>I</u>rrational <u>N</u>umbers	<u>R</u>eal Numbers
16.	$\sqrt{13}$						
17.	-5						
18.	$\frac{2}{3}$						
19.	-0.083						
20.	27						
21.	$2.6\overline{47}$						
22.	$3.050\overline{5}$						
23.	-198						
24.	$-\frac{1}{2}$						
25.	10						

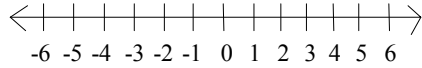
ANSWERS

1. I, R 3. R, N, R 5. R, N, R 7. I, N, R 9. None 11. R, N, R 13. R, N, R 15. I, R, N, R
17. I, R, N, R 19. R, N, R 21. R, N, R 23. I, R, N, R 25. N, W, I, R, N, R

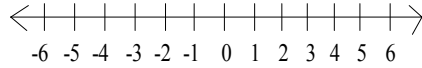
The Real Number Line Worksheet

Graph the number on the real number line.

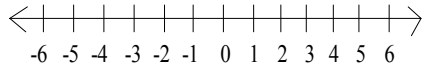
1. $3\frac{1}{2}$



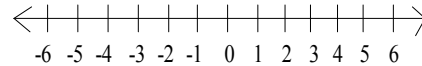
2. $-2\frac{1}{2}$



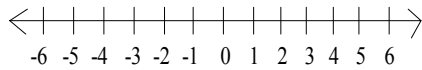
3. -4.5



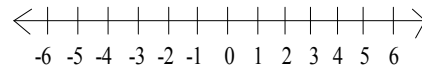
4. 0.5



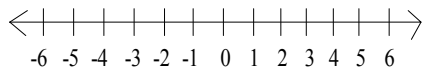
5. $\sqrt{17}$



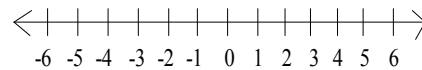
6. $-\sqrt{10}$



7. $-\sqrt{24}$

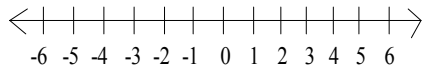


8. $\sqrt{15}$

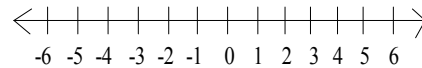


Graph.

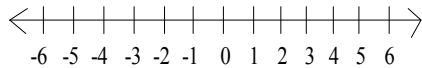
9. the real numbers greater than 4



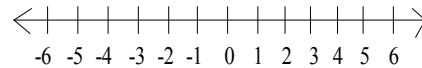
10. the real numbers greater than 1



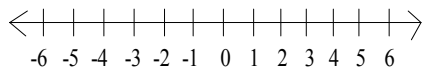
11. the real numbers less than 0



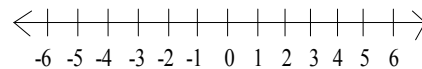
12. the real numbers greater than -2



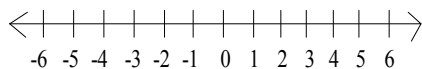
13. the real numbers less than -3



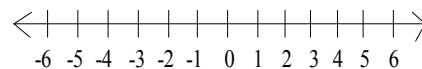
14. the real numbers less than 5



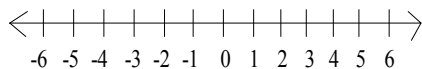
15. the real numbers less than -4



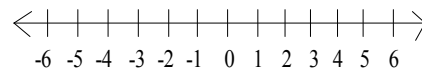
16. the real numbers less than -2



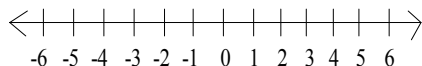
17. the real numbers between 2 and 6



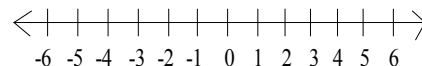
18. the real numbers between -3 and 1



19. the real numbers between -5 and -1



20. the real numbers between -3 and 0



Solve.

21. For the inequality $x \geq 6$, which numbers listed below make the inequality true?

- a. -2.6 b. 0 c. 6 d. $\sqrt{83}$

22. For the inequality $x < 3$, which numbers listed below make the inequality true?

- a. $-\sqrt{21}$ b. 0 c. 3 d. 3.02

23. For the inequality $x \leq -5$, which numbers listed below make the inequality true?

- a. 6 b. -5 c. 0 d. $-\sqrt{5}$

24. For the inequality $x \geq -2$, which numbers listed below make the inequality true?

- a. -5 b. -2 c. -1.6 d. $\sqrt{3}$

What values of the variable x make the inequality true?

25. $x > 4$

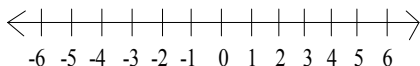
26. $x < -3$

27. $x \leq -6$

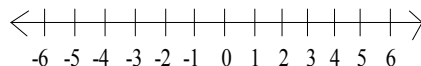
28. $x \geq 2$

Graph the inequality on the real number line.

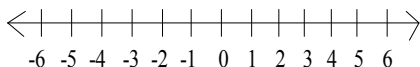
29. $x > -3$



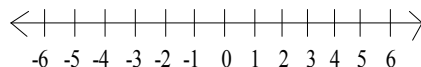
30. $x < 5$



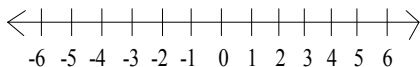
31. $x \geq 0$



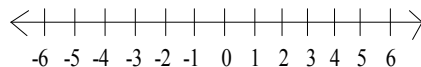
32. $x \leq -4$



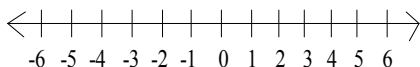
33. $x < -1$



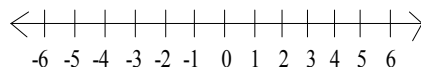
34. $x \geq 3$



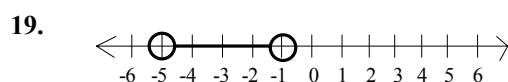
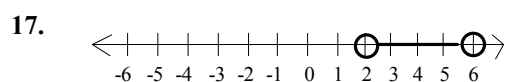
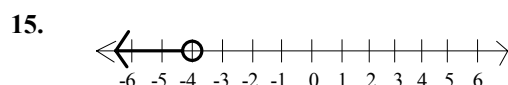
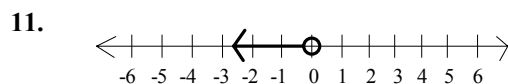
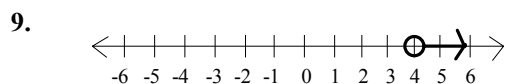
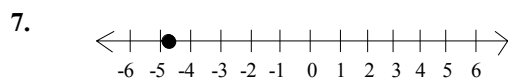
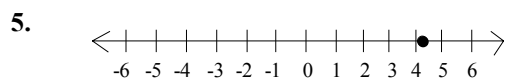
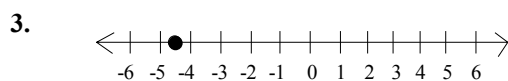
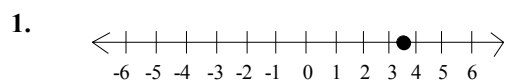
35. $x \leq 1$



36. $x > -2$



ANSWERS



21. c, d 23. b 25. All real numbers greater than 4 make the inequality true.

27. All real numbers less than or equal to -6 make the inequality true.

