

Chapter 2: Properties of Real Numbers

2.1 The Real Number System

Sponge Problems

1. Simplify: $14\frac{5}{8} - 6\frac{5}{8}$. (M8.A.3.3.1)

A. $7\frac{19}{24}$

B. 8

C. $8\frac{5}{24}$

D. $21\frac{11}{24}$

2. Simplify $11 - 1\frac{2}{3}$. (M8.A.3.3.1)

A. $9\frac{1}{3}$

B. $9\frac{2}{3}$

C. $10\frac{1}{3}$

D. $10\frac{2}{3}$

Review Problems

3. Write $\frac{5}{8}$ as a decimal and a percent.

4. Write $1\frac{4}{5}$ as a decimal and a percent.

5. Write 0.25 as a fraction and a percent.

6. Write 4.6 as a fraction and a percent.

Section Problems

Show that each number is a rational number.

7. 7

8. -5

9. -3.012

10. 2.618

11. $11\frac{3}{4}$

12. $-6\frac{5}{6}$

13. -1

14. 0

For each set of numbers, draw a number line and graph the numbers. Use an appropriate scale.

15. $\{-1, 1, 2, 4\}$

16. $\{-3, 0, 2, 6\}$

17. $\{-4, -1.5, 2, 2.5\}$

18. $\{-6.5, -2, 3.5, 7\}$

19. $\{-1\frac{1}{4}, -\frac{1}{2}, \frac{3}{4}, 1\}$

20. $\{-2, -\frac{1}{4}, 0, 1\frac{3}{4}\}$

Indicate whether the following numbers are natural numbers, whole numbers, integers, rational numbers, irrational numbers, real numbers.

21. 8

22. -11

23. $\frac{0}{10}$

24. 16.2

25. $-3\frac{1}{6}$

26. $-\sqrt{3}$

Draw a timeline and graph the following dates. (Label the start of each decade, 1920, 1930, ect.)

27. The year World War II began.

28. The year John F. Kennedy was assassinated.

29. The year in which you were born.

30. The year you will graduate from high school.