Name_____ Date_____

Find the sum. Write your answer in simplest form.

1. $-\frac{5}{4} + \frac{5}{4}$

2. $-2.7 + (-7.5)$

3. The table shows the change in the water level (in centimeters) of a reservoir for three months. Find the total change in the water level for the three-month period.

Month	1	2	3
Change in Water Level	$-\frac{13}{80}$	$\frac{21}{80}$	$-\frac{11}{80}$

Find the difference. Write your answer in simplest form.

4. $-\frac{4}{3} - \frac{7}{3}$

5. $9.49 - (-2.4)$

6. It started snowing at 1 P.M.. At 6 P.M., the total snowfall is 8 centimeters. What is the mean hourly snowfall?

7. Write $\frac{19}{2}$ as a decimal.

Find the product. Write your answer in simplest form.

8. $-\frac{3}{8}\left(-\frac{3}{5}\right)$

9. -6.3×7.2

Find the quotient. Write your answer in simplest form.

10. $\frac{2}{3} \div \left(-\frac{6}{7}\right)$

11. $-6.7 \div 2.5$

12. Evaluate $\dfrac{-\frac{9}{5}}{\frac{1}{5}+1}$. Write your answer in simplest form.

13. An online retailer allows customers to rate items. An item receives scores of $2.75, -4.75, -1, 2.25, -4, 0.25, 4.75,$ and -2.25. Find the mean score.

14. Simplify the expressions

a. $12 - 5y + 21 + y - 23$

b. $\dfrac{5}{6}x - 11 - \dfrac{1}{2}x - 11$.

15. Each person in a group buys a movie ticket, a drink, and a popcorn. How much does the group pay when there are 5 people in the group?

Item	Ticket	Drink	Popcorn
Price	$5.00	$3.75	$3.50

Simplify.

16. $\left(\dfrac{3}{4}x - 6\right) - \left(\dfrac{1}{2}x - 8\right)$

17. $\dfrac{1}{4}(12x + 12) + 8x$

18. Factor 4 out of $4x + 12$.

19. Solve

a. $-7x = -5.6$

b. $4x + 5 = -23$

c. $\dfrac{x}{8} - \dfrac{5}{2} = \dfrac{5}{2}$.

Name_____ Date _____

20. You install 404 feet of fencing along the perimeter of a rectangular yard. The width of the yard is 100 feet. What is the length of the yard?

Graph the solution of the inequality.

22. $x - 4 < 2$

23. $3x < 21$

24. $\frac{x}{4} + 2 < 1$

25. A person jogs $\frac{1}{7}$ mile in $\frac{1}{56}$ hour. What is the person's speed in miles per hour?

26. Tell whether 25 : 2 and 3 : 8 form a proportion.

27. A graph shows the speed of a vehicle, where x is the time (in hours) and y is the distance (in kilometers). The graph is a line through the points $(2, 74)$ and $(3, 111)$. Find the speed in kilometers per hour.

28. Write an equation for the proportional relationship shown in the table.

x	0.5	1	1.5	2
y	37	74	111	148

29. Find the constant of proportionality k in the equation $y = 38x$.

30. A scale drawing of a square has a side length of 2 centimeters. The drawing has a scale of 1 cm : 8 ft. Find the actual perimeter and area of the square.

31. Write 76% as a decimal.   **32.** Write 0.51 as a percent.

33. You estimate that there are 66 marbles in a jar. The actual amount is 89 marbles. Find the percent error. Round to the nearest tenth of a percent.

34. Find the selling price of a $50 item after a 50% markup.

35. You deposit $300 in a savings account. The account earns 1% simple interest per year. What is the interest earned after 3 years? the balance after 3 years? Use the formula I = prt

36. Find the circumference of a circle with a radius of 8 kilometers. Use 3.14 or $\frac{22}{7}$ for π.

37. Find the area of a circle with a diameter of 26 inches. Use 3.14 or $\frac{22}{7}$ for π.

38. Can you construct a triangle with side lengths of 1 meter, 7 meters, and 8 meters? Explain.