

Math 9

Sect. 3.3 Subtracting Rationals

Name _____

Date _____

1. $-0.9 + -1.09 = \underline{\hspace{2cm}}$

2. $-1.6 + -2.784 = \underline{\hspace{2cm}}$

3. $-7.67 + -0.767 = \underline{\hspace{2cm}}$

4. $-1.32 + -8.9 = \underline{\hspace{2cm}}$

5. $-\frac{1}{4} + -\frac{2}{5} = \underline{\hspace{2cm}}$

6. $-\frac{3}{7} + -\frac{3}{5} = \underline{\hspace{2cm}}$

7. $-\frac{3}{4} + -\frac{2}{5} = \underline{\hspace{2cm}}$

8. $-3\frac{1}{2} + -2\frac{1}{3} = \underline{\hspace{2cm}}$

9. $-5\frac{1}{4} + -8\frac{1}{5} = \underline{\hspace{2cm}}$

10. $2\frac{3}{4} + -3\frac{5}{6} = \underline{\hspace{2cm}}$

11. $-\frac{7}{8} - 3\frac{1}{5} = \underline{\hspace{2cm}}$

12. $-\frac{3}{4} - 2\frac{2}{5} = \underline{\hspace{2cm}}$

13. $-\frac{3}{5} - \frac{7}{10} + \frac{2}{15}$

14. $-\frac{1}{7} + \frac{2}{3} - \frac{5}{14}$

15. $-\frac{3}{4} + \frac{4}{5} - \frac{9}{10}$

16. $6\frac{3}{10} - 5\frac{2}{5}$

17. $-4\frac{3}{4} - 3\frac{3}{8}$

18. $5\frac{1}{5} - 4\frac{3}{5} - \left(-3\frac{2}{5}\right)$

19. $11\frac{1}{2} - \left(-5\frac{3}{4}\right) - 12\frac{1}{4}$

20. $-13\frac{3}{4} + 4\frac{5}{8} + \left(-5\frac{1}{4}\right)$

21. $1\frac{4}{5} + \left(-6\frac{2}{3}\right) + 8\frac{7}{15}$

22. List the following fractions in order from *least* to *greatest*:

$$\frac{5}{7}, \frac{8}{10}, \frac{3}{4}$$

23. Simplify: $(4\frac{1}{3} - 2\frac{3}{4}) \div 1\frac{7}{12}$

24. Simplify and express as a mixed fraction: $(3\frac{1}{4} + 5\frac{2}{3}) \div 6\frac{1}{2}$

25. Which expression represents the greatest number: $-\frac{5}{8}$, $-\frac{3}{5}$, or $-\frac{13}{20}$?

26. Express as a common fraction: $\frac{\frac{7}{12} - (\frac{5}{6} - \frac{3}{4})}{\frac{1}{12}}$

27. Express in simplest form: $\left(\frac{\frac{2}{3} \div \frac{3}{4}}{1\frac{5}{6}}\right) \left(\frac{2\frac{1}{5} \times 3}{3\frac{1}{5}}\right)$

28. Simplify and write your answer as a common fraction:

$$\frac{\frac{3}{4} - \frac{2}{3}}{\frac{1}{2} - \frac{1}{4}}$$

29. After Madonna ate $\frac{1}{8}$ of the pie and Gene Simmons ate $\frac{1}{7}$ of the remainder of the pie, five other rock artists divided the pie equally among themselves. What percent of the original pie did each of the five other rock stars receive?
30. A pole is painted in red, white, and blue sections. If $\frac{1}{3}$ of the pole is white, and $\frac{1}{4}$ is red, what fraction of the pole is blue?
31. Consider the sum: $\frac{1}{12} + \frac{1}{10} + \frac{1}{8} + \frac{1}{6} + \frac{1}{4} + \frac{1}{2}$. Which fractions must be removed if the sum of the remaining numbers is to add to 1?
32. Simplify: $(1\frac{1}{2})^{-2} + (1\frac{1}{2})^{-1} + (1\frac{1}{2})^0 + (1\frac{1}{2})^1 + (1\frac{1}{2})^2$
Express your answer as a common fraction.
33. If you spend $\frac{1}{3}$ of each day asleep, $\frac{1}{12}$ of each day eating, $\frac{1}{6}$ watching TV or playing baseball, $\frac{1}{8}$ of each day studying, and the rest at school, how many hours a day do you spend at school?
34. Find an integer x such that $\frac{2}{3} < \frac{x}{5} < \frac{6}{7}$.
35. Compute: $0.\overline{7} - 0.\overline{4} + 0.\overline{2}$. Express your answer as a common fraction.
36. Express the sum of $0.\overline{31}$ and $0.\overline{8}$ as a common fraction.
37. Keisha earned some money and spent $\frac{2}{3}$ of it. She worked some more and earned $\frac{2}{3}$ of the amount she had spent. Keisha then had \$70. How many dollars had Keisha spent?

Answer List

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| 1. -1.99 | 2. -4.384 | 3. -8.437 |
| 4. -10.22 | 5. $-\frac{13}{20}$ | 6. $-1\frac{1}{35}$ |
| 7. $-1\frac{3}{20}$ | 8. $-5\frac{5}{6}$ | 9. $-13\frac{9}{20}$ |
| 10. $-1\frac{1}{12}$ | 11. $-4\frac{3}{40}$ | 12. $-3\frac{3}{20}$ |
| 13. $-\frac{7}{6}$ | 14. $\frac{1}{6}$ | 15. $-\frac{17}{20}$ |
| 16. $\frac{9}{10}$ | 17. $-8\frac{1}{8}$ | 18. 4 |
| 19. 5 | 20. $-14\frac{3}{8}$ | 21. $3\frac{3}{5}$ |
| 22. $\frac{5}{7}, \frac{3}{4}, \frac{8}{10}$ | 23. 1 | 24. $1\frac{29}{78}$ |
| 25. $-\frac{3}{5}$ | 26. 6 | 27. 1 |
| 28. $\frac{1}{3}$ | 29. 15 (%) | 30. $\frac{5}{12}$ |
| 31. $\frac{5}{12}$ | 32. $\frac{211}{36}$ | 33. 7 (hrs) |
| 34. 4 | 35. $\frac{5}{9}$ | 36. $\frac{119}{99}$ |
| 37. $(\$)$ 60 (dollars) | | |