

Workout Section

1. Calculate the following subtraction and reduce the result.

$$\frac{19}{12} - \frac{27}{4} = ?$$

2. Calculate the following subtraction and write the result as a reduced mixed fraction.

$$7 - \frac{2}{5} = ?$$

3. Calculate the following subtraction and write the result as a reduced mixed fraction.

$$\frac{15}{11} - \frac{7}{4} = ?$$

4. Calculate the following subtraction and write the result as a reduced mixed fraction.

$$7\frac{1}{2} - 4\frac{1}{6} = ?$$

5. Calculate the following subtraction and write the result as a reduced mixed fraction.

$$3\frac{1}{3} - 6\frac{3}{7} = ?$$

6. Perform the following chain of operations.

$$\frac{3}{4} \times \left(\frac{1}{6} - \frac{3}{7} \div \frac{2}{5} \right)$$

7. Perform the following chain of operations.

$$\left(\frac{1}{2}\right)^2 + \frac{2}{5} \times \frac{3}{10}$$

8. Perform the following chain of operations.

$$\frac{1}{6} + \frac{1}{2} \times \frac{8}{4} - \frac{1}{7}$$

9. Perform the following chain of operations.

$$\frac{2}{9} + \frac{1}{3} \times \frac{15}{27}$$

10. Perform the following chain of operations.

$$\left(\frac{3}{7} + \frac{1}{3}\right) \times \frac{2}{3}$$

11. Calculate the following multiplication and reduce the result.

$$\frac{4}{5} \times \frac{5}{12} = ?$$

12. Calculate the following multiplication and write the result as a reduced Mixed Fraction.

$$\frac{5}{4} \times \frac{7}{3} \times \frac{9}{2} = ?$$

13. Calculate the following multiplication and reduce the result.

$$\frac{1}{3} \times \frac{12}{15} \times \frac{5}{6} = ?$$

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14. Calculate the following multiplication and write the result as a reduced Mixed Fraction.

$$4\times\frac{9}{4}=?$$

15. Calculate the following multiplication and write the result as a reduced Mixed Fraction.

$$14 \times \frac{10}{21} = ?$$

16. Calculate the following division and reduce the result.

$$\frac{1}{8} \div \frac{3}{4} = ?$$

17. Calculate the following division and reduce the result.

$$\frac{8}{11} \div 4 = ?$$

18. Perform the following calculation and reduce the result.

$$2\frac{2}{5} \div 6 \div \frac{7}{11} = ?$$

19. Perform the following calculation and reduce the result.

$$\frac{2}{5} \div \frac{4}{45} \div \frac{9}{2} = ?$$

20. Calculate the following division and write the result as a reduced mixed fraction.

$$7 \div \frac{14}{11} = ?$$

- 21. Dane wants to go on the school trip to New York City. The cost of the trip is \$320 per student. His parents told him that they would pay for ²/₅ of the cost and his grandparents would pay for half of it. How much money will Dane have to pay to cover the remaining cost of the trip?
- 22. The Bishop's Gaiters football team has a 15 liter water cooler that is used to fill bottles for the players during their practices and games. The bottles that the players drink from hold on average $\frac{3}{5}$ of a liter. How many of these bottles can be filled before the manager of the team needs to fill the 15 liter water cooler again?
- 23. At Upper Canada College in Toronto, $\frac{1}{5}$ of the students take the bus to go to school, $\frac{3}{10}$ get a drive from their parents and the rest of the students walk to school. What fraction of the students walk to school?
- 24. Last year at the Dorval "So you think you can dance" competition, the three finalists were Simka, Jasmine and Cheryl. The audience voted for the winner and the results were $\frac{8}{36}$ for Simka, $\frac{1}{3}$ for Jasmine and $\frac{4}{9}$ for Cheryl. Who won the competition?



- 25. Kris is a basketball player. Last week he made 30 of his 45 shots that he took in his game. This week he took 30 shots in his game. If he had the same shooting average both weeks, how many shots did he make this week?
- **26.** Calculate the following addition and write the result as a mixed fraction.

$$2\frac{1}{5} + 3\frac{5}{6}$$

27. Calculate the following addition and write the result as a mixed fraction.

$$\frac{15}{8} + 5$$

28. Calculate the following addition and write the result as a mixed fraction.

$$\frac{6}{7} + \frac{1}{5}$$

29. Calculate the following addition and reduce the result.

$$\frac{6}{17} + \frac{1}{2}$$

30. Calculate the following addition and write the result as a mixed fraction.

$$3\frac{1}{4} + 8\frac{2}{5}$$

- **31.** If $\frac{8}{9}$ of the staff at the Queen Elizabeth Hospital own a car, how many of the 450 hospital workers own a car?
- 32. At Loyola High School in Montreal, $\frac{1}{2}$ of the students volunteer at the Montreal Institute for the blind. If 425 students volunteer at this organization, how many students attend Loyola High School?
- **33.** Solve for x in the equation below.

$$\frac{x}{15} = \frac{4}{15}$$

34. Solve for x in the equation below.

$$\frac{20}{12} = \frac{x}{3}$$

35. Solve for *x* in the equation below.

$$\frac{3}{x} = \frac{2}{10}$$

- **36.** Convert $\frac{26}{6}$ to a reduced mixed fraction.
- **37.** Convert $\frac{14}{26}$ to an Irreducible fraction.
- **38.** Convert $6\frac{3}{5}$ to an Improper Fraction.



39. Arrange the following fractions in increasing order.

$$S = \left\{ \frac{3}{2}, \frac{5}{3}, \frac{13}{8} \right\}$$

- **40.** Convert $\frac{34}{4}$ to a reduced mixed fraction.
- **41.** Calculate the value of the following expression.

$$\frac{2^{2}}{7}$$

42. Calculate the value of the following expression.

$$\left[\frac{3}{4}\right]^2$$

43. Perform the following calculation and reduce the result.

$$\left\lceil \frac{3}{4} \right\rceil^2 \times \sqrt{\frac{4}{9}}$$

44. Calculate the value of the following expression.

$$\sqrt{\frac{4}{25}}$$

45. Perform the following calculation and reduce the result.

$$\left[\frac{4}{5}\right]^2 \times \left[\frac{5}{4}\right]^3$$