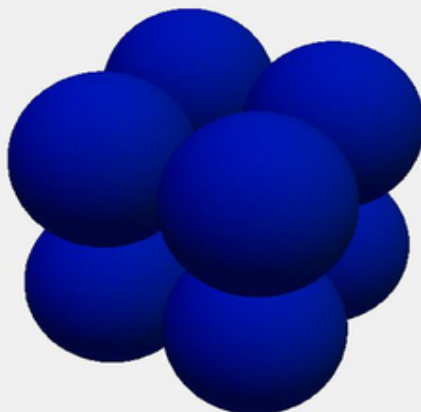


# MathCon

*The Mathematics Firm*

## Reducciones

Problemas sobre reducciones 2



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# Capítulo 1

## Sumas 2

### 1.1. Reducir las siguientes sumas

- |                                  |                        |
|----------------------------------|------------------------|
| 1. $\frac{3}{6} + \frac{5}{9}$   | Sol: $\frac{19}{18}$ . |
| 2. $\frac{6}{3} + \frac{9}{10}$  | Sol: $\frac{29}{10}$ . |
| 3. $\frac{4}{9} + \frac{10}{4}$  | Sol: $\frac{53}{18}$ . |
| 4. $\frac{8}{2} + \frac{2}{5}$   | Sol: $\frac{22}{5}$ .  |
| 5. $\frac{10}{5} + \frac{10}{9}$ | Sol: $\frac{28}{9}$ .  |
| 6. $\frac{2}{7} + \frac{1}{2}$   | Sol: $\frac{11}{14}$ . |
| 7. $\frac{3}{5} + \frac{5}{2}$   | Sol: $\frac{31}{10}$ . |
| 8. $\frac{5}{10} + \frac{3}{4}$  | Sol: $\frac{5}{4}$ .   |
| 9. $\frac{7}{5} + \frac{1}{10}$  | Sol: $\frac{3}{2}$ .   |
| 10. $\frac{4}{9} + \frac{7}{5}$  | Sol: $\frac{83}{45}$ . |
| 11. $\frac{8}{7} + \frac{1}{3}$  | Sol: $\frac{31}{21}$ . |
| 12. $\frac{3}{7} + \frac{9}{4}$  | Sol: $\frac{75}{28}$ . |
| 13. $\frac{6}{4} + \frac{7}{6}$  | Sol: $\frac{8}{3}$ .   |
| 14. $\frac{5}{2} + \frac{3}{8}$  | Sol: $\frac{23}{8}$ .  |
| 15. $\frac{7}{9} + \frac{8}{2}$  | Sol: $\frac{43}{9}$ .  |

16.  $\frac{6}{8} + \frac{10}{2}$

Sol:  $\frac{23}{4}$ .

17.  $\frac{8}{5} + \frac{2}{8}$

Sol:  $\frac{37}{20}$ .

18.  $\frac{9}{8} + \frac{3}{10}$

Sol:  $\frac{57}{40}$ .

19.  $\frac{7}{6} + \frac{2}{4}$

Sol:  $\frac{5}{3}$ .

20.  $\frac{6}{7} + \frac{4}{6}$

Sol:  $\frac{32}{21}$ .

**1.2. Reducir las siguientes sumas**

21.  $\frac{2}{6} - \frac{10}{7}$

Sol:  $-\frac{23}{21}$ .

22.  $\frac{5}{6} - \frac{1}{8}$

Sol:  $\frac{17}{24}$ .

23.  $\frac{7}{4} - \frac{9}{7}$

Sol:  $\frac{13}{28}$ .

24.  $\frac{7}{5} - \frac{1}{6}$

Sol:  $\frac{37}{30}$ .

25.  $\frac{4}{5} - \frac{3}{7}$

Sol:  $\frac{13}{35}$ .

26.  $\frac{5}{8} - \frac{10}{3}$

Sol:  $-\frac{65}{24}$ .

27.  $\frac{2}{10} - \frac{6}{5}$

Sol:  $-1$ .

28.  $\frac{1}{4} - \frac{1}{10}$

Sol:  $\frac{3}{20}$ .

29.  $\frac{5}{7} - \frac{3}{8}$

Sol:  $\frac{19}{56}$ .

30.  $\frac{7}{5} - \frac{1}{4}$

Sol:  $\frac{23}{20}$ .

31.  $\frac{4}{3} - \frac{3}{10}$

Sol:  $\frac{31}{30}$ .

32.  $\frac{2}{10} - \frac{1}{9}$

Sol:  $\frac{4}{45}$ .

33.  $\frac{8}{2} - \frac{3}{7}$

Sol:  $\frac{25}{7}$ .

34.  $\frac{4}{3} - \frac{1}{10}$

Sol:  $\frac{37}{30}$ .

35.  $\frac{5}{2} - \frac{6}{7}$

Sol:  $\frac{23}{14}$ .

36.  $\frac{1}{6} - \frac{8}{10}$

Sol:  $-\frac{19}{30}$ .

37.  $\frac{1}{9} - \frac{8}{10}$

Sol:  $-\frac{31}{45}$ .

38.  $\frac{5}{4} - \frac{6}{5}$

Sol:  $\frac{1}{20}$ .

39.  $\frac{9}{7} - \frac{3}{5}$

Sol:  $\frac{24}{35}$ .

40.  $\frac{10}{9} - \frac{10}{7}$

Sol:  $-\frac{20}{63}$ .

**1.3. Reducir las siguientes sumas**

41.  $\frac{1}{4} + \frac{1}{3} + \frac{3}{5}$

Sol:  $\frac{71}{60}$ .

42.  $\frac{2}{4} + \frac{2}{5} + \frac{1}{2}$

Sol:  $\frac{7}{5}$ .

43.  $\frac{4}{2} + \frac{5}{2} + \frac{3}{5}$

Sol:  $\frac{51}{10}$ .

44.  $\frac{4}{3} + \frac{1}{5} + 2$

Sol:  $\frac{53}{15}$ .

45.  $3 + \frac{3}{4} + \frac{4}{5}$

Sol:  $\frac{91}{20}$ .

46.  $\frac{1}{5} + \frac{1}{2} + \frac{5}{3}$

Sol:  $\frac{71}{30}$ .

47.  $\frac{3}{2} + \frac{1}{5} + \frac{1}{3}$

Sol:  $\frac{61}{30}$ .

48.  $\frac{5}{4} + \frac{3}{5} + \frac{4}{3}$

Sol:  $\frac{191}{60}$ .

49.  $\frac{4}{3} + \frac{1}{2} + \frac{1}{2}$

Sol:  $\frac{7}{3}$ .

50.  $\frac{2}{4} + \frac{1}{4} + \frac{2}{3}$

Sol:  $\frac{17}{12}$ .

51.  $\frac{5}{4} + \frac{4}{3} + \frac{2}{5}$

Sol:  $\frac{179}{60}$ .

52.  $\frac{5}{3} + \frac{3}{4} + \frac{3}{5}$

Sol:  $\frac{181}{60}$ .

53.  $\frac{1}{3} + \frac{5}{3} + \frac{1}{5}$

Sol:  $\frac{11}{5}$ .

54.  $\frac{1}{2} + \frac{4}{3} + \frac{3}{5}$

Sol:  $\frac{73}{30}$ .

55.  $\frac{1}{3} + \frac{2}{4} + \frac{5}{4}$

Sol:  $\frac{25}{12}$ .

56.  $\frac{3}{5} + \frac{3}{2} + \frac{1}{3}$

Sol:  $\frac{73}{30}$ .

57.  $2 + \frac{1}{4} + \frac{1}{5}$

Sol:  $\frac{49}{20}$ .

58.  $\frac{1}{4} + \frac{2}{3} + \frac{4}{2}$

Sol:  $\frac{35}{12}$ .

59.  $\frac{1}{4} + \frac{2}{3} + \frac{4}{2}$

Sol:  $\frac{35}{12}$ .

60.  $\frac{4}{3} + \frac{5}{3} + \frac{1}{2}$

Sol:  $\frac{7}{2}$ .

**1.4. Reducir las siguientes sumas**

61.  $\frac{4}{3} - \frac{1}{4} - \frac{5}{2}$

Sol:  $-\frac{17}{12}$ .

62.  $\frac{1}{5} - \frac{2}{3} - \frac{3}{5}$

Sol:  $-\frac{16}{15}$ .

63.  $\frac{1}{5} - \frac{3}{5} - \frac{2}{5}$

Sol:  $-\frac{4}{5}$ .

64.  $\frac{5}{4} - \frac{1}{3} - \frac{1}{3}$

Sol:  $\frac{7}{12}$ .

65.  $\frac{1}{2} - \frac{5}{2} - \frac{3}{5}$

Sol:  $-\frac{13}{5}$ .

66.  $\frac{3}{5} - \frac{5}{2} - \frac{1}{5}$

Sol:  $-\frac{21}{10}$ .

67.  $\frac{4}{5} - \frac{5}{3} - \frac{1}{5}$

Sol:  $-\frac{16}{15}$ .

68.  $\frac{2}{5} - \frac{1}{4} - \frac{4}{2}$

Sol:  $-\frac{37}{20}$ .

69.  $\frac{5}{4} - \frac{3}{2} - \frac{5}{2}$

Sol:  $-\frac{11}{4}$ .

70.  $\frac{3}{2} - \frac{3}{4} - \frac{4}{2}$

Sol:  $-\frac{5}{4}$ .

71.  $\frac{2}{3} - \frac{5}{4} - \frac{1}{4}$

Sol:  $-\frac{5}{6}$ .

72.  $\frac{5}{3} - \frac{2}{4} - \frac{1}{3}$

Sol:  $\frac{5}{6}$ .

73.  $\frac{5}{4} - \frac{3}{4} - \frac{2}{5}$

Sol:  $\frac{1}{10}$ .

74.  $\frac{5}{2} - \frac{1}{4} - \frac{5}{3}$

Sol:  $\frac{1}{3}$ .

75.  $\frac{3}{4} - \frac{1}{5} - \frac{2}{4}$

Sol:  $\frac{1}{20}$ .

76.  $\frac{2}{4} - \frac{2}{5} - \frac{5}{3}$

Sol:  $-\frac{47}{30}$ .

77.  $\frac{3}{4} - \frac{1}{2} - \frac{5}{2}$

Sol:  $-\frac{9}{4}$ .

78.  $\frac{4}{2} - \frac{3}{4} - \frac{2}{3}$

Sol:  $\frac{7}{12}$ .

$$79. \frac{2}{5} - \frac{3}{2} - \frac{1}{2} \qquad \text{Sol: } -\frac{8}{5}.$$

$$80. \frac{4}{5} - \frac{1}{2} - \frac{2}{4} \qquad \text{Sol: } -\frac{1}{5}.$$

### 1.5. Reducir las siguientes sumas

- |  |                           |
|--|---------------------------|
| 81. $\frac{a}{b} + \frac{a}{3b}$       | Sol: $\frac{4a}{3b}$ .    |
| 82. $\frac{a}{3b} + \frac{3a}{b}$      | Sol: $\frac{10a}{3b}$ .   |
| 83. $\frac{a}{2b} + \frac{a}{b}$       | Sol: $\frac{3a}{2b}$ .    |
| 84. $\frac{2a}{b} + \frac{2a}{2b}$     | Sol: $\frac{3a}{b}$ .     |
| 85. $\frac{a}{b} + \frac{2a}{3b}$      | Sol: $\frac{5a}{3b}$ .    |
| 86. $\frac{3a}{2b} + \frac{2a}{3b}$    | Sol: $\frac{13a}{6b}$ .   |
| 87. $\frac{a}{2b} + \frac{a}{3b}$      | Sol: $\frac{5a}{6b}$ .    |
| 88. $\frac{a}{3b} + \frac{2a}{3b}$     | Sol: $\frac{a}{b}$ .      |
| 89. $\frac{2a}{b} + \frac{a}{2b}$      | Sol: $\frac{5a}{2b}$ .    |
| 90. $\frac{3a}{4b} + \frac{a}{3b}$     | Sol: $\frac{13a}{12b}$ .  |
| 91. $\frac{3a}{4b} + \frac{2a}{5b}$    | Sol: $\frac{23a}{20b}$ .  |
| 92. $\frac{5a}{2b} + \frac{5a}{4b}$    | Sol: $\frac{15a}{4b}$ .   |
| 93. $\frac{3a}{5b} - \frac{a}{2b}$     | Sol: $\frac{a}{10b}$ .    |
| 94. $\frac{3a}{4b} - \frac{2a}{b}$     | Sol: $-\frac{5a}{4b}$ .   |
| 95. $\frac{4a}{3b} - \frac{4a}{5b}$    | Sol: $\frac{8a}{15b}$ .   |
| 96. $\frac{a}{3b} - \frac{a}{b}$       | Sol: $-\frac{2a}{3b}$ .   |
| 97. $\frac{2a}{3b} - \frac{3a}{4b}$    | Sol: $-\frac{a}{12b}$ .   |
| 98. $\frac{a}{5b} - \frac{5a}{2b}$     | Sol: $-\frac{23a}{10b}$ . |
| 99. $\frac{5a}{4b} - \frac{5a}{3b}$    | Sol: $-\frac{5a}{12b}$ .  |
| 100. $\frac{11a}{5b} - \frac{15a}{2b}$ | Sol: $-\frac{53a}{10b}$ . |