Operaciones con fracciones

Resolver las siguientes operaciones con fracciones, simplificando en todo momento los pasos intermedios y el resultado:

1. $\frac{1}{4}+\frac{1}{3}\cdot\frac{6}{5}=$ *(Soluc: 13/20)*
2. $\left(\frac{1}{4}+\frac{1}{3}\right)\cdot\frac{6}{5}=$ *(Soluc: 7/10)*
3. $1-\frac{2}{3}\cdot\frac{1}{5}=$ *(Soluc: 13/15)*
4. $\left(1-\frac{2}{3}\right)\cdot\frac{1}{5}=$ *(Soluc: 1/15)*
5. $-\frac{2}{3}+\frac{4}{3}\cdot\frac{1}{2}=$ *(Soluc: 0)*
6. $\left(-1+\frac{1}{2}-\frac{1}{3}\right)\cdot\frac{6}{5}=$ *(Soluc: -1)*
7. $-\frac{2}{5}+\frac{1}{3}\cdot\frac{4}{5}-\frac{1}{3}\cdot\frac{6}{5}=$ *(Soluc: -8/15)*
8. $\left(-\frac{2}{5}+\frac{1}{3}\right)\cdot\frac{4}{5}-\frac{1}{3}\cdot\frac{6}{5}=$ *(Soluc: -34/75)*
9. $\frac{1}{2}+\frac{1}{3}\cdot\frac{4}{3}-\frac{1}{12}+\frac{5}{4}\cdot\frac{8}{3}=$ *(Soluc: 151/36)*
10. $\left(\frac{1}{2}+\frac{1}{3}\right)\cdot\frac{4}{3}-\frac{1}{12}+\frac{5}{4}\cdot\frac{8}{3}=$ *(Soluc: 157/36)*
11. $\left(1-\frac{1}{2}+\frac{1}{3}\right)\cdot\frac{2}{5}=$ *(Soluc: 1/3)*
12. $1-\frac{1}{2}+\frac{1}{3}\cdot\frac{2}{5}=$ *(Soluc: 19/30)*
13. $-\frac{1}{2}\cdot\frac{4}{7}-\frac{2}{14}+\frac{1}{2}\cdot\frac{5}{7}=$ *(Soluc: -1/14)*
14. $-\frac{1}{2}\cdot\left(\frac{4}{7}-\frac{2}{14}\right)+\frac{1}{2}\cdot\frac{5}{7}=$ *(Soluc: 1/7)*
15. $\frac{17}{9}-\frac{15}{5}+\frac{4}{3}:\left(\frac{1}{5}+\frac{2}{3}-\frac{1}{15}\right)+\frac{14}{3}:\frac{16}{8}=$ *(Soluc: 26/9)*
16. $\frac{1}{3}+\frac{4}{3}:\frac{5}{6}\cdot\left(\frac{1}{2}-\frac{3}{2}\cdot\frac{10}{9}+4\right)=$ *(Soluc: 73/15)*
17. $\frac{4}{5}-\frac{7}{3}\cdot\frac{3}{7}+\frac{1}{5}\left(2+\frac{1}{2}\right)-\frac{7}{3}+4:\frac{6}{5}=$ *(Soluc: 13/10)*
18. $\frac{2}{3}+\frac{5}{4}\left(\frac{3}{5}+\frac{4}{10}\right)-\frac{5}{4}+\left(\frac{3}{5}:4\right)+\frac{12}{5}=$ *(Soluc: 193/60)*
19. $2+\frac{1}{5}:\left(2+\frac{7}{3}-\frac{2}{4}+\frac{5}{3}\right)=$ *(Soluc: 112/55)*
20. $\left(\frac{2}{7}-\frac{4}{5}+\frac{2}{8}\right)\cdot\frac{3}{2}-\frac{7}{5}:\frac{4}{7}=$ *(Soluc: -797/280)*
21. $\frac{17}{9}-\frac{15}{5}+\frac{4}{3}:\left(\frac{1}{5}+\frac{2}{3}-\frac{1}{15}\right)+\frac{14}{3}:\frac{16}{8}=$ *(Soluc: 26/9)*
22. $\frac{21}{5}+\frac{15}{4}\cdot\frac{16}{3}-\frac{15}{30}+\frac{12}{4}:\frac{5}{4}+3=$ *(Soluc: 291/10)*

23. $\frac{2}{3}-\left[\frac{3}{2}-\frac{1}{5}-\left(\frac{2}{5}-\frac{1}{3}\right)+\left(\frac{6}{5}-\frac{1}{2}\right)\right]-\frac{3}{4}+\left(\frac{1}{2}-\frac{1}{3}\right)=$ *(Soluc: -37/20)*

24. $2-\left[\frac{4}{3}-\left(\frac{1}{2}+\frac{2}{5}\right)-\frac{1}{3}\right]-\left(\frac{4}{3}+2\right)-\frac{1}{5}=$ *(Soluc: -49/30)*

25. $\frac{2}{3}+\left[1-\left(\frac{3}{4}-\frac{1}{6}\right)\right]=$ *(Soluc: 13/12)*

26. $2+\left(\frac{5}{2}-3\right)-\left[\frac{7}{10}-\left(\frac{2}{5}+\frac{1}{4}\right)\right]=$ *(Soluc: 29/20)*

27. $\left[-\frac{3}{8}+\left(4-\frac{1}{2}\right)\right]-\left[\left(2-\frac{5}{4}\right)+\left(\frac{7}{2}-\frac{1}{8}\right)\right]=$ *(Soluc: -1)*

28. $\left(\frac{4}{3}-\frac{-1}{9}\right)+\left[2-\left(-\frac{5}{4}+\frac{2}{3}\right)\right]-\frac{7}{2}=$ *(Soluc: 19/36)*

29. $\left[\left(\frac{4}{6}+\frac{1/7}{2}\right):\left(\frac{4}{3}-\frac{5}{12}\right)\right]\cdot\left(\frac{1}{6}+\frac{1}{15}\right)=$ *(Soluc: 31/165)*

30. $\left(\frac{1}{3}-\frac{4}{5}\right)\cdot\left[\left(\frac{1}{3}-1\right)\cdot 3-\frac{1+2/5}{3}\right]=$ *(Soluc: 259/225)*

31. $\frac{4}{5}:\left[\frac{12}{16}\left(\frac{1}{6}+\frac{2}{3}\right)-\frac{3}{8}\right]-3\left[\frac{1}{6}:\left(1-\frac{2}{5}\right)\right]=$ *(Soluc: 71/30)*

32. $\frac{3}{2}-\frac{1}{2}\cdot\frac{4}{3}:\left(\frac{4}{3}-\frac{2}{3}\cdot\frac{15}{8}+1\right)=$ *(Soluc: 23/26)*

33. $\dfrac{\frac{3}{5}+\frac{1}{2}}{\frac{2}{3}-\frac{1}{2}}=$ *(Soluc: 33/5)*

34. $\dfrac{\frac{2}{5}-\frac{1}{2}+\frac{1}{3}}{\frac{2}{3}\cdot\frac{6}{5}}=$ *(Soluc: 7/24)*

35. $\dfrac{\frac{1}{2}+\frac{3}{2}\cdot\frac{1}{6}}{\left(\frac{1}{2}+\frac{3}{2}\right):\frac{1}{6}}=$ *(Soluc: 1/16)*

36. $\dfrac{\frac{1}{2}+\frac{3}{5}:\frac{2}{3}-4}{\left(3+\frac{2}{5}\right)\cdot\frac{1}{3}}=$ *(Soluc: -39/17)*

37. $\dfrac{\left(\frac{2}{5}:3+\frac{1}{2}\right)\cdot\frac{1}{3}-\frac{2}{7}}{\frac{2}{5}\cdot 3-\left(\frac{1}{2}+\frac{1}{3}\right)\cdot\frac{2}{7}}=$ *(Soluc: -47/606)*

38. $\dfrac{\frac{3}{5}:\left(1-\frac{2}{3}\cdot\frac{9}{4}\right)+3}{\left[\frac{1}{7}\cdot\left(\frac{2}{7}-\frac{1}{3}\right)+\frac{5}{2}\right]:\frac{1}{2}}=$ *(Soluc: 1323/3665)*

39. $\dfrac{\frac{1}{2}-\frac{1}{3}\cdot\frac{2}{5}+\frac{3}{2}:\frac{1}{4}+5}{\frac{1}{2}-\frac{1}{3}\cdot\left(\frac{2}{5}+\frac{3}{2}:\frac{1}{4}+5\right)}=$ *(Soluc: -31/9)*

40. $\dfrac{\left(\frac{1}{2}:\frac{1}{3}+2\right)\cdot\frac{2}{5}-\frac{1}{2}}{\frac{1}{3}:\left(\frac{2}{3}+\frac{1}{3}\cdot\frac{5}{2}\right)+\frac{1}{3}}=$ *(Soluc: 81/50)*

41. $\dfrac{1-\frac{1}{2}+\frac{1}{3}\cdot\frac{1}{5}-3}{\left(1-\frac{1}{2}\right)\cdot\left(\frac{1}{3}+\frac{1}{5}\right)+3}=$ *(Soluc: -73/98)*

42. $\dfrac{1+\frac{1}{2}}{1-\frac{1}{3}}=$ *(Soluc: 9/4)*

43. $\dfrac{\frac{2}{5}-\frac{6}{3}+\frac{2}{3}}{1-\frac{2}{5}-\frac{6}{4}}-\dfrac{\frac{1}{2}+\frac{1}{3}}{\frac{2}{3}+\frac{6}{5}}=$ *(Soluc: 893/1512)*

44. $\dfrac{\frac{1}{2}+\frac{1}{3}-\frac{1}{4}}{2+\frac{5}{2}-\frac{1}{6}}\cdot\dfrac{2}{1-\frac{3}{2-\frac{1}{4}}}=$ *(Soluc: -49/130)*

45. $\dfrac{\left(2+\frac{1}{3}\right)\cdot\left(4-\frac{2}{3}\right)}{1+\frac{5}{4}:\frac{3}{12}}=$ *(Soluc: 35/27)*

46. $\dfrac{\frac{5}{3}+\frac{3}{4}:1-\frac{5}{4}+\frac{17}{3}}{\frac{15}{3}+\frac{2}{5}}=$ *(Soluc: 205/162)*

47. $\dfrac{\left[-3+\frac{2}{5}\left(\frac{1}{2}+\frac{3}{2}\cdot\frac{8}{27}\right)\right]:\frac{3}{2}}{\left(\frac{2}{5}-3:\frac{3}{2}\right)\frac{8}{27}\cdot\left(\frac{1}{2}+\frac{3}{2}\right)}=$ *(Soluc: 59/32)*

48. $\dfrac{\frac{1}{4}+\frac{2}{4}+\frac{3}{4}\cdot\frac{2}{9}}{2+\frac{1}{3}\cdot\left(2-\frac{1}{3}\cdot\frac{6}{5}\right)}=$ *(Soluc: 55/152)*

49. $\dfrac{\frac{1}{5}+\frac{3}{5}\cdot\frac{25}{6}-2:\frac{4}{9}}{\frac{4}{9}\left(\frac{1}{5}-2\right)-\frac{1}{3}}=$ *(Soluc: 27/17)*

50. $\dfrac{2-\frac{5}{3}:\left(1+\frac{1}{5}\right)-2}{2:\frac{5}{3}+1-\frac{1}{5}:2}=$ *(Soluc: -125/189)*

51. $\dfrac{\frac{3}{5}:\frac{1}{2}+\frac{2}{5}-\frac{1}{5}:\left(\frac{3}{5}\cdot\frac{10}{9}\right)}{\frac{3}{5}+\frac{1}{5}:\frac{2}{5}\ \frac{1}{5}\left(\frac{3}{5}+\frac{10}{9}\right)}=$ *(Soluc: 585/347)*

52. $1+\dfrac{1}{1+\frac{1}{1+\frac{1}{2}}}=$ *(Soluc: 8/5)*

53. $\dfrac{\left[\left(\frac{1}{7}-\frac{1}{2}\right)\frac{2}{3}+\frac{1}{3}\right]\frac{2}{5}-3}{\frac{1}{7}-\frac{1}{2}\,\frac{2}{3}:\frac{1}{3}\,\frac{2}{5}-3}=$ *(Soluc: 311/342)*

54. $3+\dfrac{2}{3+\dfrac{2}{3+\frac{2}{3}}}=$ *(Soluc: 139/39)*

55. $\dfrac{\frac{1}{2}\,\frac{8}{3}+\frac{3}{5}:\frac{9}{25}-1}{\frac{1}{2}\cdot\left(\frac{8}{3}+\frac{3}{5}\right):\frac{9}{25}+1}=$ *(Soluc: 108/299)*

56. $\dfrac{\frac{3}{5}:3-2\,\frac{3}{8}+\frac{2}{3}}{\frac{2}{3}+\frac{1}{3}\left(\frac{2}{4}+\frac{1}{6}\right)-3}=$ *(Soluc: -21/380)*

57. $\dfrac{\left[\left(\frac{1}{2}+\frac{3}{2}\,\frac{8}{27}\right)\frac{2}{5}-3\right]:\frac{3}{2}}{\left(\frac{1}{2}+\frac{3}{2}\right)\frac{8}{27}\left(\frac{2}{5}-3:\frac{3}{2}\right)}=$ *(Soluc: 59/32)*

58. $1+\dfrac{2}{3+\dfrac{4}{5+\frac{6}{7}}}=$ *(Soluc: 233/151)*

59. $\dfrac{\frac{3}{2}+\frac{1}{2}\left(\frac{2}{3}-\frac{3}{5}-3\right)+\frac{29}{6}:5}{1+\dfrac{2}{3+\frac{4}{5}}:\left(2-\frac{28}{19}\right)}=$ *(Soluc: 1/2)*

60. $\dfrac{\frac{3}{2}-\frac{2}{3}+\frac{15}{8}\,\frac{2}{3}}{\frac{2}{3}\left(-\frac{9}{10}\right)-\left(\frac{2}{3}-\frac{1}{3}\,\frac{12}{5}\right)}=$ *(Soluc: -125/28)*

61. $\dfrac{\frac{4}{3}-\frac{2}{3}\left(2-\frac{2}{3}+\frac{1}{5}\right):\frac{2}{5}-\frac{1}{5}}{\frac{4}{3}-\frac{2}{3}:2-\left(\frac{2}{3}+\frac{1}{5}:\frac{2}{5}\right)-\frac{1}{5}}=$ *(Soluc: 128/33)*

62. $\dfrac{\left(\frac{3}{5}-\frac{1}{6}+\frac{2}{24}\right)-\left(\frac{2}{30}-\frac{1}{4}+\frac{3}{9}\right)}{\left(\frac{1}{3}-\frac{5}{10}\right):\frac{5}{3}-\frac{4}{16}\left(3-\frac{5}{3}\right)}=$ *(Soluc: -11/13)*

63. $\dfrac{\left(\frac{1}{5}+2-\frac{1}{3}\right):\frac{1}{5}+\frac{3}{2}}{\frac{1}{5}+\left(2-\frac{1}{3}:\frac{1}{5}\right)\cdot\frac{3}{2}}=$ *(Soluc: 325/21)*

64. $\dfrac{\frac{3}{2}\left(\frac{2}{5}+3:\frac{6}{5}\right)-\frac{7}{20}}{\left(3+\frac{3}{2}\cdot\frac{4}{10}\right):\frac{6}{5}-\frac{4}{5}}=$ *(Soluc: 20/11)*