

Multiplicación y división de fracciones

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Sección 1: Multiplicación de fracciones

Esta serie de ejercicios viene explicada en los capítulos relacionados con multiplicación división de fracciones y fracciones de la playlist de fracciones del canal de YouTube "Mateducando".

Puedes consultar las clases de fracciones en el siguiente link: https://youtube.com/playlist?list=PL-SETmeZ3ceGpYju-&si=bP826foCS6yc1DA_

También puedes solicitar asesorías de matemáticas o apoyar este proyecto en: <https://linktr.ee/mateducando>

Multiplica las siguientes fracciones:

- $\left(\frac{1}{2}\right)\left(\frac{3}{4}\right) =$
- $\left(\frac{-2}{5}\right)\left(\frac{4}{7}\right) =$
- $\left(\frac{3}{8}\right)\left(\frac{-5}{6}\right) =$
- $\left(\frac{1}{3}\right)\left(\frac{2}{3}\right) =$
- $7\left(\frac{5}{2}\right) =$
- $6\left(\frac{4}{7}\right) =$
- $\left(\frac{4}{9}\right)\left(\frac{2}{4}\right) =$
- $\left(\frac{-3}{7}\right)\left(\frac{5}{8}\right) =$
- $\left(\frac{5}{6}\right)\left(\frac{-4}{9}\right) =$
- $\left(\frac{4}{5}\right)\left(\frac{6}{10}\right) =$
- $\left(\frac{-7}{11}\right)\left(\frac{3}{7}\right) =$
- $\left(\frac{8}{23}\right)(-3) =$
- $-\left(\frac{5}{14}\right)(-4) =$
- $-22\left(\frac{-12}{30}\right) =$
- $25\left(\frac{-28}{70}\right) =$
- $-36\left(\frac{-9}{-45}\right) =$
- $\left(\frac{5}{8}\right)\left(\frac{-8}{12}\right) =$
- $\left(\frac{2}{3}\right)\left(\frac{3}{4}\right) =$
- $\left(\frac{-6}{9}\right)\left(\frac{9}{15}\right) =$
- $\left(\frac{3}{4}\right)\left(\frac{4}{5}\right) =$
- $\left(\frac{-7}{10}\right)\left(\frac{10}{14}\right) =$
- $\left(\frac{4}{5}\right)\left(\frac{-5}{6}\right) =$
- $\left(\frac{1}{2}\right)\left(\frac{-3}{4}\right)\left(\frac{2}{5}\right) =$
- $\left(\frac{-2}{3}\right)\left(\frac{4}{6}\right)\left(\frac{-3}{9}\right) =$
- $\left(\frac{5}{8}\right)\left(\frac{-16}{20}\right)\left(\frac{4}{10}\right) =$
- $(27)\left(\frac{-8}{9}\right)\left(\frac{33}{40}\right) =$
- $\left(\frac{105}{20}\right)\left(\frac{14}{52}\right)(16) =$
- $\left(\frac{-3}{7}\right)\left(\frac{14}{21}\right)\left(\frac{-7}{28}\right) =$
- $\left(\frac{6}{9}\right)\left(\frac{-18}{24}\right)\left(\frac{9}{27}\right) =$
- $\left(-\frac{50}{400}\right)(2)\left(\frac{13}{40}\right) =$
- $-\left(-\frac{4,900}{35}\right)\left(\frac{3}{70}\right)(4) =$
- $\left(\frac{-4}{5}\right)\left(\frac{20}{25}\right)\left(\frac{-5}{15}\right) =$
- $-6\left(\frac{52}{22}\right)\left(\frac{-35}{104}\right) =$
- $-(-7)\left(\frac{-85}{18}\right)\left(\frac{-66}{34}\right) =$
- $\left(\frac{7}{10}\right)\left(\frac{-30}{40}\right)\left(\frac{10}{50}\right) =$
- $\left(\frac{16}{70}\right)(30)\left(\frac{42}{40}\right) =$
- $\left(\frac{8}{12}\right)\left(\frac{-24}{36}\right)\left(\frac{12}{48}\right) =$
- $\left(\frac{2}{10,500}\right)(350)(20) =$
- $15\left(\frac{11}{126}\right)(20) =$
- $\left(\frac{9}{15}\right)\left(\frac{-45}{60}\right)\left(\frac{15}{75}\right) =$
- $(70)(14,000)\left(\frac{69}{490,000}\right) =$
- $\left(\frac{-2}{4}\right)\left(\frac{8}{12}\right)\left(\frac{-4}{16}\right) =$

$$43. \left(\frac{1}{3}\right) \left(\frac{-3}{6}\right) \left(\frac{6}{9}\right) \left(\frac{-9}{12}\right) =$$

$$44. \left(\frac{-2}{5}\right) \left(\frac{5}{10}\right) \left(\frac{-10}{15}\right) \left(\frac{15}{20}\right) =$$

$$45. \left(\frac{3}{4}\right) \left(\frac{-6}{8}\right) \left(\frac{12}{16}\right) \left(\frac{-24}{32}\right) =$$

$$46. \left(\frac{-4}{7}\right) \left(\frac{7}{14}\right) \left(\frac{-14}{21}\right) \left(\frac{21}{28}\right) =$$

$$47. \left(\frac{5}{9}\right) \left(\frac{-10}{18}\right) \left(\frac{20}{27}\right) \left(\frac{-25}{36}\right) =$$

$$48. \left(\frac{-6}{11}\right) \left(\frac{12}{22}\right) \left(\frac{-18}{33}\right) \left(\frac{24}{44}\right) =$$

$$49. \left(\frac{7}{13}\right) \left(\frac{-14}{26}\right) \left(\frac{21}{39}\right) \left(\frac{-28}{52}\right) =$$

$$50. \left(\frac{-8}{14}\right) \left(\frac{16}{28}\right) \left(\frac{-24}{42}\right) \left(\frac{32}{56}\right) =$$

$$51. \left(\frac{9}{15}\right) \left(\frac{-18}{30}\right) \left(\frac{27}{45}\right) \left(\frac{-36}{60}\right) =$$

$$52. \left(\frac{-10}{16}\right) \left(\frac{20}{32}\right) \left(\frac{-30}{48}\right) \left(\frac{40}{64}\right) =$$

Sección 2: Simplificación de divisiones

Resuelve las siguientes operaciones y expresa tu resultado en fracción y en fracción mixta si es posible.

$$1. \frac{3(4)}{5(8)} =$$

$$2. \frac{8(3)}{(-2)} =$$

$$3. \frac{5}{7(10)} =$$

$$4. \frac{9(-7)}{-3(14)} =$$

$$5. \frac{3(2)}{4(12)} =$$

$$6. \frac{10(-8)(-3)}{7(4)(5)} =$$

$$7. \frac{-100(7)}{-4(5)(-14)} =$$

$$8. \frac{34(9)(12)}{8(17)} =$$

$$9. \frac{15(22)(5)}{4(30)} =$$

$$10. \frac{124(9)}{39(-16)(8)} =$$

$$11. \frac{4(-9)(-21)(14)(5)}{18(-49)(10)} =$$

Ejercicios de práctica

$$12. \frac{3(4)}{5(8)} =$$

$$13. \frac{8(3)}{(-2)} =$$

$$14. \frac{5}{7(10)} =$$

$$15. \frac{9(-7)}{-3(14)} =$$

$$16. \frac{3(2)}{4(12)} =$$

$$17. \frac{10(-8)(-3)}{7(4)(5)} =$$

$$18. \frac{-100(7)}{-4(5)(-14)} =$$

$$19. \frac{34(9)(12)}{8(17)} =$$

$$20. \frac{15(22)(5)}{4(30)} =$$

$$21. \frac{124(9)}{39(-16)(8)} =$$

$$22. \frac{4(-9)(-21)(14)(5)}{18(-49)(10)} =$$

$$23. \frac{6(3)}{2(9)} =$$

$$24. \frac{-7(4)}{5(10)} =$$

$$25. \frac{11}{3(6)} =$$

$$26. \frac{8(-5)}{-2(12)} =$$

$$27. \frac{7(2)}{4(14)} =$$

$$28. \frac{-9(6)}{(-3)(18)} =$$

$$29. \frac{12}{5(15)} =$$

$$30. \frac{10(-4)}{7(-20)} =$$

$$31. \frac{-15(3)(2)}{9(6)(10)} =$$

$$32. \frac{20(5)(4)}{-10(8)(12)} =$$

$$33. \frac{-25(6)(3)(2)}{15(9)(18)} =$$

$$34. \frac{30(-7)(5)}{(-15)(10)(20)} =$$

$$35. \frac{-35(8)(4)(3)}{20(12)(24)} =$$

$$36. \frac{40}{-10(25)} =$$

$$37. \frac{-45(9)}{(-15)(30)} =$$

$$38. \frac{50(10)(5)}{25(35)} =$$

$$39. \frac{-55(11)(6)}{-5(40)} =$$

$$40. \frac{60(12)(7)(2)}{30(14)(28)} =$$

$$41. \frac{-65(13)(8)(3)}{-10(16)(32)} =$$

$$42. \frac{70}{-14(35)} =$$

$$43. \frac{-75(15)}{(-25)(50)} =$$

$$44. \frac{80(16)(4)}{40(20)} =$$

$$45. \frac{-85(17)(5)}{-20(25)} =$$

$$46. \frac{90(18)(6)(3)}{45(30)(60)} =$$

$$47. \frac{-95(19)(7)(4)}{-25(35)(70)} =$$

$$48. \frac{100}{-20(40)} =$$

$$49. \frac{-105(21)}{(-35)(50)} =$$

$$50. \frac{110(22)(8)}{55(44)} =$$

$$51. \frac{-115(23)(9)}{-30(48)} =$$

$$52. \frac{120(24)(10)(5)}{60(60)(80)} =$$

$$53. \frac{-125(25)(11)(6)}{-35(70)(90)} =$$

Sección 3: Multiplicación, división y suma

Resuelve las siguientes operaciones y expresa tu resultado tanto en fracción impropia como en fracción mixta.

$$1. \frac{2(3) + 5}{5} =$$

$$2. \frac{4}{4(2) + 1} =$$

$$3. \frac{7(3) + 3}{8} =$$

$$4. \frac{6(5) - 10}{5 + 10} =$$

$$5. \frac{2(5)(4)}{9(20)} =$$

$$6. \frac{(4 + 7)(2) - 7(5 - 9)}{14(2) - 18} =$$

$$7. \left(\frac{5}{4 + 7}\right) \left(\frac{33}{9}\right) =$$

$$8. \left(\frac{4(5)}{7 + 31}\right) \left(\frac{2}{7 - 19}\right) =$$

$$9. \left(\frac{8(7)(25)}{10(4)}\right) + \left(\frac{4 + 7 + 3}{9}\right) \left(\frac{30}{25}\right) \left(\frac{9(5) - 8(6)}{10 - 3(4)}\right) =$$

Ejercicios de repaso:

$$10. \frac{2(3) + 5}{5} =$$

$$11. \frac{4}{4(2) + 1} =$$

$$12. \frac{7(3) + 3}{8} =$$

$$13. \frac{6(5) - 10}{5 + 10} =$$

$$14. \frac{2(5)(4)}{9(20)} =$$

$$15. \frac{(4 + 7)(2) - 7(5 - 9)}{14(2) - 18} =$$

$$16. \left(\frac{5}{4 + 7}\right) \left(\frac{33}{9}\right) =$$

$$17. \left(\frac{4(5)}{7 + 31}\right) \left(\frac{2}{7 - 19}\right) =$$

$$18. \left(\frac{8(7)(25)}{10(4)}\right) + \left(\frac{4 + 7 + 3}{9}\right) \left(\frac{30}{25}\right) \left(\frac{9(5) - 8(6)}{10 - 3(4)}\right) =$$

$$19. \frac{3(4) + 2}{6} =$$

$$20. \frac{5}{5(3) + 2} =$$

$$21. \frac{10(2) + 4}{8} =$$

$$22. \frac{12(5) - 6}{10 + 15} =$$

$$23. \frac{3(6)(2)}{18(4)} =$$

$$24. \frac{(5 + 3)(4) - 6(7 - 2)}{20(3) - 30} =$$

$$25. \left(\frac{6}{3 + 9}\right) \left(\frac{24}{12}\right) =$$

$$26. \left(\frac{5(6)}{8 + 24}\right) \left(\frac{4}{8 - 16}\right) =$$

$$27. \left(\frac{10(5)(3)}{15(5)}\right) + \left(\frac{6 + 4 + 2}{12}\right) \left(\frac{20}{10}\right) \left(\frac{12(4) - 10(5)}{15 - 3(5)}\right) =$$

$$28. \frac{4(3) + 7}{7} =$$

$$29. \frac{6}{6(3) + 2} =$$

$$30. \frac{9(2) + 4}{10} =$$

$$31. \frac{8(4) - 12}{6 + 12} =$$

$$32. \frac{3(7)(2)}{21(6)} =$$

$$33. \frac{(5 + 6)(3) - 8(4 - 1)}{28(4) - 36} =$$

$$34. \left(\frac{7}{5 + 5}\right) \left(\frac{28}{14}\right) =$$

$$35. \left(\frac{6(4)}{10 + 30}\right) \left(\frac{3}{12 - 24}\right) =$$

$$36. \left(\frac{15(8)(5)}{30(6)} \right) + \left(\frac{7+9+4}{18} \right) \left(\frac{50}{25} \right) \left(\frac{18(6) - 15(7)}{20 - 4(5)} \right) = 42. \frac{(6+5)(3) - 9(4-2)}{28(4) - 36} =$$

$$37. \frac{5(4) + 3}{9} =$$

$$43. \left(\frac{9}{6+6} \right) \left(\frac{36}{18} \right) =$$

$$38. \frac{7}{7(3) + 2} =$$

$$44. \left(\frac{8(7)}{14+28} \right) \left(\frac{4}{12-24} \right) =$$

$$39. \frac{11(2) + 5}{12} =$$

$$45. \left(\frac{16(8)(30)}{40(5)} \right) + \left(\frac{8+10+5}{21} \right) \left(\frac{60}{30} \right) \left(\frac{21(7) - 16(6)}{25 - 5(5)} \right) =$$

$$40. \frac{14(5) - 7}{10 + 20} =$$

$$46. \frac{6(4) + 8}{10} =$$

$$41. \frac{4(8)(3)}{24(6)} =$$

Sección 4: División de fracciones

Resuelve las siguientes operaciones y expresa tu resultado tanto en fracción impropia como en fracción mixta si es que puede pasarse a fracción mixta.

1. $\frac{12}{4} \div \frac{3}{6} =$

2. $\frac{\frac{12}{4}}{\frac{3}{6}} =$

3. $5 \div \frac{2}{3} =$

4. $\frac{1}{\frac{4}{5}} =$

5. $\frac{7}{8} \div 2 =$

6. $3 \div \frac{1}{4} =$

7. $\frac{\frac{9}{3}}{\frac{6}{12}} =$

8. $\frac{10}{5} \div \frac{2}{7} =$

9. $\frac{\frac{16}{4}}{\frac{8}{16}} =$

10. $\frac{1}{2} \div \frac{3}{4} =$

11. $\frac{\frac{14}{7}}{\frac{7}{14}} =$

12. $4 \div \frac{3}{5} =$

13. $\frac{1}{\frac{5}{6}} =$

14. $\frac{11}{4} \div 3 =$

15. $6 \div \frac{2}{5} =$

16. $\frac{\frac{18}{6}}{\frac{9}{18}} =$

17. $\frac{12}{3} \div \frac{4}{9} =$

18. $\frac{\frac{20}{5}}{\frac{10}{20}} =$

19. $\frac{2}{3} \div \frac{4}{5} =$

20. $\frac{1}{\frac{6}{7}} =$

21. $\frac{13}{4} \div 2 =$

22. $7 \div \frac{3}{8} =$

23. $\frac{\frac{24}{8}}{\frac{12}{24}} =$

24. $\frac{3}{5} \div \frac{2}{9} =$

25. $\frac{1}{\frac{7}{10}} =$

26. $\frac{15}{5} \div 3 =$

27. $8 \div \frac{4}{7} =$

28. $\frac{\frac{28}{7}}{\frac{14}{28}} =$

29. $\frac{4}{9} \div \frac{3}{6} =$

30. $\frac{1}{\frac{8}{11}} =$

31. $\frac{17}{4} \div 2 =$

32. $9 \div \frac{5}{12} =$

33. $\frac{\frac{30}{6}}{\frac{15}{30}} =$

34. $\frac{5}{7} \div \frac{3}{8} =$

35. $\frac{1}{\frac{9}{13}} =$

36. $\frac{19}{5} \div 4 =$

37. $10 \div \frac{6}{14} =$

38. $\frac{\frac{32}{8}}{\frac{16}{32}} =$

39. $\frac{6}{11} \div \frac{4}{9} =$

40. $\frac{1}{\frac{10}{15}} =$

41. $\frac{21}{6} \div 3 =$

42. $11 \div \frac{7}{16} =$

43. $\frac{\frac{36}{12}}{\frac{18}{36}} =$

44. $\frac{7}{10} \div \frac{5}{12} =$

45. $\frac{1}{\frac{11}{17}} =$

46. $\frac{23}{5} \div 4 =$

47. $12 \div \frac{8}{19} =$

48. $\frac{\frac{40}{10}}{\frac{20}{40}} =$

49. $\frac{8}{13} \div \frac{6}{17} =$

50. $\frac{1}{\frac{12}{19}} =$

51. $\frac{25}{6} \div 5 =$

52. $13 \div \frac{9}{20} =$

53. $\frac{\frac{44}{11}}{\frac{22}{44}} =$

54. $\frac{9}{14} \div \frac{7}{21} =$

55. $\frac{1}{\frac{13}{23}} =$

56. $\frac{27}{7} \div 6 =$

57. $14 \div \frac{10}{24} =$

58. $\frac{\frac{48}{12}}{\frac{24}{48}} =$

59. $\frac{10}{17} \div \frac{8}{23} =$

60. $\frac{1}{\frac{14}{25}} =$

61. $\frac{29}{8} \div 5 =$

62. $15 \div \frac{12}{26} =$

63. $\frac{\frac{52}{13}}{\frac{26}{52}} =$

64. $\frac{11}{19} \div \frac{9}{25} =$

65. $\frac{1}{\frac{16}{29}} =$

66. $\frac{31}{9} \div 6 =$

67. $16 \div \frac{14}{28} =$

68. $\frac{\frac{56}{14}}{\frac{28}{56}} =$

69. $\frac{12}{21} \div \frac{10}{27} =$

70. $\frac{1}{\frac{18}{31}} =$

71. $\frac{33}{10} \div 7 =$

72. $17 \div \frac{16}{32} =$

Sección 5: Surtido rico de suma, resta, multiplicación y división de fracciones

Resuelve las siguientes operaciones y expresa tu resultado tanto en fracción impropia como en fracción mixta si es que puede pasarse a fracción mixta.

$$1. \frac{\frac{1}{4} - \frac{5}{4}}{\frac{7}{2}} =$$

$$2. \frac{3 + \frac{5}{2}}{66} =$$

$$3. \frac{5}{7} \left(\frac{1}{\left(\frac{21}{2}\right)} \right) =$$

$$4. \frac{4 \left(\frac{7}{8}\right)}{4/5} =$$

$$5. (5) \left(\frac{-9}{10} \right) \left(\frac{12}{\frac{7}{2} + \frac{5}{2}} \right) =$$

$$6. \frac{\frac{1}{5/7} + 1}{\frac{1}{6/11} \left(\frac{4}{5}\right)} =$$

$$7. 1 + \frac{1}{7/2} =$$

$$8. 5 - \frac{1}{4/3} =$$

$$9. \frac{1}{\frac{14}{5} - \frac{33}{10}}$$

$$10. \frac{4 \left(\frac{20}{8}\right) \left(\frac{7}{15}\right)}{\frac{7}{8} - \frac{5}{2}}$$

$$11. \frac{\frac{1}{8/9} - \frac{7}{8}}{2 \left(\frac{4}{5}\right) - \left(\frac{3}{2}\right) \left(\frac{2}{5}\right)} =$$

$$12. \frac{2/3}{4/25} + \frac{5}{6} - \frac{3}{\frac{5}{12} - \frac{1}{4}} =$$

$$13. \frac{1}{1 - \frac{1}{1 - \frac{1}{7/4}}}$$

Ejercicios de repaso:

$$14. \frac{\frac{1}{3} - \frac{5}{6}}{\frac{8}{3}} =$$

$$15. \frac{2 + \frac{4}{3}}{45} =$$

$$16. \frac{3}{5} \left(\frac{1}{\frac{12}{5}} \right) =$$

$$17. \frac{3 \left(\frac{5}{7}\right)}{3/4} =$$

$$18. (4) \left(\frac{-6}{7} \right) \left(\frac{10}{\frac{5}{2} + \frac{7}{3}} \right) =$$

$$19. \frac{\frac{1}{6/9} + 1}{\frac{1}{5/12} \left(\frac{3}{4}\right)} =$$

$$20. 1 + \frac{1}{5/3} =$$

$$21. 6 - \frac{1}{3/4} =$$

$$22. \frac{1}{\frac{10}{4} - \frac{5}{8}}$$

$$23. \frac{3 \left(\frac{15}{7}\right) \left(\frac{9}{12}\right)}{\frac{6}{7} - \frac{8}{5}}$$

$$24. \frac{\frac{1}{5/6} - \frac{8}{7}}{3 \left(\frac{5}{8}\right) - \left(\frac{2}{3}\right) \left(\frac{3}{7}\right)} =$$

$$25. \frac{1/2}{3/14} + \frac{4}{7} - \frac{2}{\frac{7}{15} - \frac{3}{5}} =$$

$$26. \frac{1}{1 - \frac{1}{1 - \frac{1}{5/2}}}$$

$$27. \frac{\frac{2}{5} - \frac{1}{3}}{\frac{4}{9}} =$$

$$28. \frac{5 + \frac{3}{4}}{72} =$$

$$29. \frac{6}{11} \left(\frac{1}{\frac{9}{2}} \right) =$$

$$30. \frac{5 \left(\frac{9}{7}\right)}{5/6} =$$

$$31. (2) \left(\frac{-7}{8} \right) \left(\frac{14}{\frac{6}{4} + \frac{8}{5}} \right) =$$

$$32. \frac{\frac{1}{7/8} + 1}{\frac{1}{8/15} \left(\frac{9}{10}\right)} =$$

$$33. 1 + \frac{1}{9/5} =$$

$$34. 8 - \frac{1}{5/2} =$$

$$35. \frac{1}{\frac{12}{5} - \frac{19}{10}}$$

$$36. \frac{7 \left(\frac{25}{6}\right) \left(\frac{4}{9}\right)}{\frac{9}{4} - \frac{6}{5}}$$

$$37. \frac{\frac{1}{9/8} - \frac{5}{9}}{4 \left(\frac{5}{7}\right) - \left(\frac{8}{9}\right) \left(\frac{1}{4}\right)} =$$

$$38. \frac{5/6}{7/25} + \frac{2}{9} - \frac{4}{\frac{7}{20} - \frac{5}{12}} =$$

$$39. \frac{1}{1 - \frac{1}{1 - \frac{1}{6/5}}}$$

$$40. \frac{\frac{3}{4} - \frac{2}{7}}{\frac{5}{8}} =$$

$$41. \frac{4 + \frac{2}{5}}{50} =$$

$$42. \frac{7}{13} \left(\frac{1}{\frac{11}{3}} \right) =$$

$$43. \frac{8 \left(\frac{7}{9}\right)}{8/11} =$$

$$44. (3) \left(\frac{-8}{9} \right) \left(\frac{15}{\frac{8}{3} + \frac{5}{4}} \right) =$$

$$45. \frac{\frac{1}{9/12} + 1}{\frac{1}{7/10} \left(\frac{8}{9}\right)} =$$

$$46. 1 + \frac{1}{8/3} =$$

47. $7 - \frac{1}{6/5} =$

49. $\frac{6 \left(\frac{35}{9}\right) \left(\frac{5}{6}\right)}{\frac{9}{7} - \frac{8}{3}}$

51. $\frac{3/5}{5/16} + \frac{7}{12} - \frac{6}{\frac{8}{17} - \frac{5}{14}} =$

48. $\frac{1}{\frac{15}{7} - \frac{28}{9}}$

50. $\frac{\frac{1}{6/5} - \frac{9}{11}}{5 \left(\frac{9}{11}\right) - \left(\frac{7}{6}\right) \left(\frac{8}{7}\right)} =$

52. $\frac{1}{1 - \frac{1}{1 - \frac{1}{7/3}}}$

Revisa la playlist de “El Club de la Matemática” en el link https://youtube.com/playlist?list=PL-SETmeZ3ceE9wmmoe1eP1n&si=eVx9iZyIfM_K5Dpi

Puedes consultar el número de capítulo en el link correspondiente a esta clase: <https://www.youtube.com/live/3v9qPZJ7cHo?si=sxajM2qSIPkSgKE4>

También puedes solicitar asesorías de matemáticas o apoyar este proyecto en: <https://linktr.ee/mateducando>

Sección 1 (Respuestas)

Nota: Las respuestas fueron obtenidas con ChatGPT o1-mini. Si encuentras algún error, repórtalo al correo: correcciones@mateducando.com

1. $\left(\frac{1}{2}\right)\left(\frac{3}{4}\right) = \frac{3}{8}$
2. $\left(\frac{-2}{5}\right)\left(\frac{4}{7}\right) = -\frac{8}{35}$
3. $\left(\frac{3}{8}\right)\left(\frac{-5}{6}\right) = -\frac{5}{16}$
4. $\left(\frac{1}{3}\right)\left(\frac{2}{3}\right) = \frac{2}{9}$
5. $7\left(\frac{5}{2}\right) = \frac{35}{2} = 17\frac{1}{2}$
6. $6\left(\frac{4}{7}\right) = \frac{24}{7} = 3\frac{3}{7}$
7. $\left(\frac{4}{9}\right)\left(\frac{2}{4}\right) = \frac{2}{9}$
8. $\left(\frac{-3}{7}\right)\left(\frac{5}{8}\right) = -\frac{15}{56}$
9. $\left(\frac{5}{6}\right)\left(\frac{-4}{9}\right) = -\frac{10}{27}$
10. $\left(\frac{4}{5}\right)\left(\frac{6}{10}\right) = \frac{12}{25}$
11. $\left(\frac{-7}{11}\right)\left(\frac{3}{7}\right) = -\frac{3}{11}$
12. $\left(\frac{8}{23}\right)(-3) = -\frac{24}{23} = -1\frac{1}{23}$
13. $-\left(\frac{5}{14}\right)(-4) = \frac{10}{7} = 1\frac{3}{7}$
14. $-22\left(\frac{-12}{30}\right) = \frac{44}{5} = 8\frac{4}{5}$
15. $25\left(\frac{-28}{70}\right) = -10$
16. $-36\left(\frac{-9}{-45}\right) = -\frac{36}{5} = -7\frac{1}{5}$
17. $\left(\frac{5}{8}\right)\left(\frac{-8}{12}\right) = -\frac{5}{12}$
18. $\left(\frac{2}{3}\right)\left(\frac{3}{4}\right) = \frac{1}{2}$
19. $\left(\frac{-6}{9}\right)\left(\frac{9}{15}\right) = -\frac{2}{5}$
20. $\left(\frac{3}{4}\right)\left(\frac{4}{5}\right) = \frac{3}{5}$
21. $\left(\frac{-7}{10}\right)\left(\frac{10}{14}\right) = -\frac{1}{2}$
22. $\left(\frac{4}{5}\right)\left(\frac{-5}{6}\right) = -\frac{2}{3}$
23. $\left(\frac{1}{2}\right)\left(\frac{-3}{4}\right)\left(\frac{2}{5}\right) = -\frac{3}{20}$
24. $\left(\frac{-2}{3}\right)\left(\frac{4}{6}\right)\left(\frac{-3}{9}\right) = \frac{4}{27}$
25. $\left(\frac{5}{8}\right)\left(\frac{-16}{20}\right)\left(\frac{4}{10}\right) = -\frac{1}{5}$
26. $(27)\left(\frac{-8}{9}\right)\left(\frac{33}{40}\right) = -\frac{99}{5} = -19\frac{4}{5}$
27. $\left(\frac{105}{20}\right)\left(\frac{14}{52}\right)(16) = \frac{294}{13} = 22\frac{8}{13}$
28. $\left(\frac{-3}{7}\right)\left(\frac{14}{21}\right)\left(\frac{-7}{28}\right) = \frac{1}{14}$
29. $\left(\frac{6}{9}\right)\left(\frac{-18}{24}\right)\left(\frac{9}{27}\right) = -\frac{1}{6}$
30. $\left(-\frac{50}{400}\right)(2)\left(\frac{13}{40}\right) = -\frac{13}{160}$
31. $-\left(-\frac{4,900}{35}\right)\left(\frac{3}{70}\right)(4) = \frac{16}{75}$
32. $\left(\frac{-4}{5}\right)\left(\frac{20}{25}\right)\left(\frac{-5}{15}\right) = \frac{16}{75}$
33. $-6\left(\frac{52}{22}\right)\left(-\frac{35}{104}\right) = \frac{105}{22} = 4\frac{17}{22}$
34. $-(-7)\left(\frac{-85}{18}\right)\left(\frac{-66}{34}\right) = \frac{385}{6} = 64\frac{1}{6}$
35. $\left(\frac{7}{10}\right)\left(\frac{-30}{40}\right)\left(\frac{10}{50}\right) = -\frac{21}{200}$
36. $\left(\frac{16}{70}\right)(30)\left(\frac{42}{40}\right) = \frac{36}{5} = 7\frac{1}{5}$
37. $\left(\frac{8}{12}\right)\left(\frac{-24}{36}\right)\left(\frac{12}{48}\right) = -\frac{1}{9}$
38. $\left(\frac{2}{10,500}\right)(350)(20) = \frac{4}{3} = 1\frac{1}{3}$
39. $15\left(\frac{11}{126}\right)(20) = \frac{550}{21} = 26\frac{4}{21}$
40. $\left(\frac{9}{15}\right)\left(\frac{-45}{60}\right)\left(\frac{15}{75}\right) = -\frac{9}{100}$
41. $(70)(14,000)\left(\frac{69}{490,000}\right) = \frac{138}{138}$
42. $\left(\frac{-2}{4}\right)\left(\frac{8}{12}\right)\left(\frac{-4}{16}\right) = \frac{1}{12}$
44. $\left(\frac{1}{3}\right)\left(\frac{-3}{6}\right)\left(\frac{6}{9}\right)\left(\frac{-9}{12}\right) = \frac{1}{12}$
45. $\left(\frac{-2}{5}\right)\left(\frac{5}{10}\right)\left(\frac{-10}{15}\right)\left(\frac{15}{20}\right) = \frac{1}{10}$
46. $\left(\frac{3}{4}\right)\left(\frac{-6}{8}\right)\left(\frac{12}{16}\right)\left(\frac{-24}{32}\right) = \frac{81}{256}$
47. $\left(\frac{-4}{7}\right)\left(\frac{7}{14}\right)\left(\frac{-14}{21}\right)\left(\frac{21}{28}\right) = \frac{1}{7}$
48. $\left(\frac{5}{9}\right)\left(\frac{-10}{18}\right)\left(\frac{20}{27}\right)\left(\frac{-25}{36}\right) = \frac{3125}{19683}$
49. $\left(\frac{-6}{11}\right)\left(\frac{12}{22}\right)\left(\frac{-18}{33}\right)\left(\frac{24}{44}\right) = \frac{1296}{14641}$

$$50. \left(\frac{7}{13}\right) \left(\frac{-14}{26}\right) \left(\frac{21}{39}\right) \left(\frac{-28}{52}\right) = \frac{2401}{28561}$$

$$51. \left(\frac{-8}{14}\right) \left(\frac{16}{28}\right) \left(\frac{-24}{42}\right) \left(\frac{32}{56}\right) = \frac{256}{2401}$$

$$52. \left(\frac{9}{15}\right) \left(\frac{-18}{30}\right) \left(\frac{27}{45}\right) \left(\frac{-36}{60}\right) = \frac{81}{625}$$

$$53. \left(\frac{-10}{16}\right) \left(\frac{20}{32}\right) \left(\frac{-30}{48}\right) \left(\frac{40}{64}\right) = \frac{625}{4096}$$

Sección 2 (Respuestas)

Nota: Las respuestas fueron obtenidas con ChatGPT o1-mini. Si encuentras algún error, repórtalo al correo: correcciones@mateducando.com

$$1. \frac{3(4)}{5(8)} = \frac{12}{40} = \frac{3}{10}$$

$$2. \frac{8(3)}{(-2)} = -12$$

$$3. \frac{5}{7(10)} = \frac{5}{70} = \frac{1}{14}$$

$$4. \frac{9(-7)}{-3(14)} = \frac{3}{2} = 1 \frac{1}{2}$$

$$5. \frac{3(2)}{4(12)} = \frac{6}{48} = \frac{1}{8}$$

$$6. \frac{10(-8)(-3)}{7(4)(5)} = \frac{240}{140} = \frac{12}{7} = 1 \frac{5}{7}$$

$$7. \frac{-100(7)}{-4(5)(-14)} = \frac{5}{2} = 2 \frac{1}{2}$$

$$8. \frac{34(9)(12)}{8(17)} = \frac{3672}{136} = 27$$

$$9. \frac{15(22)(5)}{4(30)} = \frac{1650}{120} = \frac{55}{4} = 13 \frac{3}{4}$$

$$10. \frac{124(9)}{39(-16)(8)} = \frac{-93}{416}$$

$$11. \frac{4(-9)(-21)(14)(5)}{18(-49)(10)} = -6$$

Ejercicios de práctica

$$12. \frac{6(3)}{2(9)} = \frac{18}{18} = 1$$

$$13. \frac{-7(4)}{5(10)} = \frac{-28}{50} = \frac{-14}{25}$$

$$14. \frac{11}{3(6)} = \frac{11}{18}$$

$$15. \frac{8(-5)}{-2(12)} = \frac{5}{3} = 1 \frac{2}{3}$$

$$16. \frac{7(2)}{4(14)} = \frac{14}{56} = \frac{1}{4}$$

$$17. \frac{-9(6)}{(-3)(18)} = 1$$

$$18. \frac{12}{5(15)} = \frac{4}{25}$$

$$19. \frac{10(-4)}{7(-20)} = \frac{2}{7}$$

$$20. \frac{-15(3)(2)}{9(6)(10)} = \frac{-1}{6}$$

$$21. \frac{20(5)(4)}{-10(8)(12)} = \frac{-5}{12}$$

$$22. \frac{-25(6)(3)(2)}{15(9)(18)} = \frac{-10}{27}$$

$$23. \frac{30(-7)(5)}{(-15)(10)(20)} = \frac{7}{20}$$

$$24. \frac{-35(8)(4)(3)}{20(12)(24)} = \frac{-7}{12}$$

$$25. \frac{40}{-10(25)} = \frac{-4}{25}$$

$$26. \frac{-45(9)}{(-15)(30)} = \frac{9}{10}$$

$$27. \frac{50(10)(5)}{25(35)} = \frac{20}{7} = 2 \frac{6}{7}$$

$$28. \frac{-55(11)(6)}{-5(40)} = \frac{363}{20} = 18 \frac{3}{20}$$

$$29. \frac{60(12)(7)(2)}{30(14)(28)} = \frac{6}{7}$$

$$30. \frac{-65(13)(8)(3)}{-10(16)(32)} = \frac{507}{128}$$

$$31. \frac{70}{-14(35)} = \frac{-1}{7}$$

$$32. \frac{-75(15)}{(-25)(50)} = \frac{9}{10}$$

$$33. \frac{80(16)(4)}{40(20)} = \frac{32}{5} = 6 \frac{2}{5}$$

$$34. \frac{-85(17)(5)}{-20(25)} = \frac{289}{20} = 14 \frac{9}{20}$$

$$35. \frac{90(18)(6)(3)}{45(30)(60)} = \frac{9}{25}$$

$$36. \frac{-95(19)(7)(4)}{-25(35)(70)} = \frac{722}{875}$$

$$37. \frac{100}{-20(40)} = \frac{-1}{8}$$

$$38. \frac{-105(21)}{(-35)(50)} = \frac{63}{50} = 1 \frac{13}{50}$$

$$39. \frac{110(22)(8)}{55(44)} = 8$$

$$40. \frac{-115(23)(9)}{-30(48)} = \frac{529}{32} = 16 \frac{17}{32}$$

$$41. \frac{120(24)(10)(5)}{60(60)(80)} = \frac{1}{2}$$

$$42. \frac{-125(25)(11)(6)}{-35(70)(90)} = \frac{275}{294}$$

Sección 3 (Respuestas)

Nota: Las respuestas fueron obtenidas con ChatGPT o1-mini. Si encuentras algún error, repórtalo al correo: correcciones@mateducando.com

$$1. \frac{2(3) + 5}{5} = \frac{11}{5} = 2\frac{1}{5}$$

$$2. \frac{4}{4(2) + 1} = \frac{4}{9}$$

$$3. \frac{7(3) + 3}{8} = 3$$

$$4. \frac{6(5) - 10}{5 + 10} = \frac{4}{3} = 1\frac{1}{3}$$

$$5. \frac{2(5)(4)}{9(20)} = \frac{2}{9}$$

$$6. \frac{(4 + 7)(2) - 7(5 - 9)}{14(2) - 18} = 5$$

$$7. \left(\frac{5}{4 + 7}\right) \left(\frac{33}{9}\right) = \frac{5}{3} = 1\frac{2}{3}$$

$$8. \left(\frac{4(5)}{7 + 31}\right) \left(\frac{2}{7 - 19}\right) = -\frac{5}{57}$$

$$9. \left(\frac{8(7)(25)}{10(4)}\right) + \left(\frac{4 + 7 + 3}{9}\right) \left(\frac{30}{25}\right) \left(\frac{9(5) - 8(6)}{10 - 3(4)}\right) = 37\frac{4}{5}$$

Ejercicios de repaso:

$$10. \frac{3(4) + 2}{6} = \frac{14}{6} = \frac{7}{3} = 2\frac{1}{3}$$

$$11. \frac{5}{5(3) + 2} = \frac{5}{17}$$

$$12. \frac{10(2) + 4}{8} = \frac{24}{8} = 3$$

$$13. \frac{12(5) - 6}{10 + 15} = \frac{54}{25} = 2\frac{4}{25}$$

$$14. \frac{3(6)(2)}{18(4)} = \frac{36}{72} = \frac{1}{2}$$

$$15. \frac{(5 + 3)(4) - 6(7 - 2)}{20(3) - 30} = \frac{2}{30} = \frac{1}{15}$$

$$16. \left(\frac{6}{3 + 9}\right) \left(\frac{24}{12}\right) = 1$$

$$17. \left(\frac{5(6)}{8 + 24}\right) \left(\frac{4}{8 - 16}\right) = -\frac{15}{32}$$

$$18. \left(\frac{10(5)(3)}{15(5)}\right) + \left(\frac{6 + 4 + 2}{12}\right) \left(\frac{20}{10}\right) \left(\frac{12(4) - 10(5)}{15 - 3(5)}\right) =$$

Indefinido (porque una fracción tiene denominador cero)

$$19. \frac{4(3) + 7}{7} = \frac{19}{7} = 2\frac{5}{7}$$

$$20. \frac{6}{6(3) + 2} = \frac{6}{20} = \frac{3}{10}$$

$$21. \frac{9(2) + 4}{10} = \frac{22}{10} = \frac{11}{5} = 2\frac{1}{5}$$

$$22. \frac{8(4) - 12}{6 + 12} = \frac{20}{18} = \frac{10}{9} = 1\frac{1}{9}$$

$$23. \frac{3(7)(2)}{21(6)} = \frac{42}{126} = \frac{1}{3}$$

$$24. \frac{(5 + 6)(3) - 8(4 - 1)}{28(4) - 36} = \frac{15}{76}$$

$$25. \left(\frac{7}{5 + 5}\right) \left(\frac{28}{14}\right) = \frac{7}{5} = 1\frac{2}{5}$$

$$26. \left(\frac{6(4)}{10 + 30}\right) \left(\frac{3}{12 - 24}\right) = \frac{24}{40} \times \frac{3}{-12} = -\frac{3}{20}$$

$$27. \left(\frac{16(8)(30)}{40(5)}\right) + \left(\frac{8 + 10 + 5}{21}\right) \left(\frac{60}{30}\right) \left(\frac{21(7) - 16(6)}{25 - 5(5)}\right) =$$

Indefinido (porque una fracción tiene denominador cero)

$$28. \frac{6(4) + 8}{10} = \frac{32}{10} = \frac{16}{5} = 3\frac{1}{5}$$

$$29. \frac{5(4) + 3}{9} = \frac{23}{9} = 2\frac{5}{9}$$

$$30. \frac{7}{7(3) + 2} = \frac{7}{23}$$

$$31. \frac{11(2) + 5}{12} = \frac{27}{12} = \frac{9}{4} = 2\frac{1}{4}$$

$$32. \frac{14(5) - 7}{10 + 20} = \frac{63}{30} = \frac{21}{10} = 2\frac{1}{10}$$

$$33. \frac{4(8)(3)}{24(6)} = \frac{96}{144} = \frac{2}{3}$$

$$34. \frac{(6+5)(3) - 9(4-2)}{28(4) - 36} = \frac{15}{76}$$

$$35. \left(\frac{9}{6+6}\right) \left(\frac{36}{18}\right) = \frac{9}{12} \times \frac{36}{18} = \frac{3}{4} \times 2 = \frac{6}{4} = \frac{3}{2} = 1\frac{1}{2}$$

$$36. \left(\frac{8(7)}{14+28}\right) \left(\frac{4}{12-24}\right) = \frac{56}{42} \times \frac{4}{-12} = -\frac{4}{9}$$

$$37. \left(\frac{16(8)(30)}{40(5)}\right) + \left(\frac{8+10+5}{21}\right) \left(\frac{60}{30}\right) \left(\frac{21(7) - 16(6)}{25 - 5(5)}\right) =$$

Indefinido (porque una fracción tiene denominador cero)

$$38. \frac{6(4) + 8}{10} = \frac{32}{10} = \frac{16}{5} = 3\frac{1}{5}$$

Sección 4 (Respuestas)

Nota: Las respuestas fueron obtenidas con ChatGPT o1-mini. Si encuentras algún error, repórtalo al correo: correcciones@mateducando.com

$$1. \frac{12}{4} \div \frac{3}{6} = 6$$

$$2. \frac{\frac{12}{4}}{\frac{3}{6}} = 6$$

$$3. 5 \div \frac{2}{3} = \frac{15}{2} = 7\frac{1}{2}$$

$$4. \frac{1}{\frac{4}{5}} = \frac{5}{4} = 1\frac{1}{4}$$

$$5. \frac{7}{8} \div 2 = \frac{7}{16}$$

$$6. 3 \div \frac{1}{4} = 12$$

$$7. \frac{\frac{9}{3}}{\frac{6}{12}} = 6$$

$$8. \frac{10}{5} \div \frac{2}{7} = 7$$

$$9. \frac{\frac{16}{4}}{\frac{8}{16}} = 8$$

$$10. \frac{1}{2} \div \frac{3}{4} = \frac{2}{3}$$

$$11. \frac{\frac{14}{7}}{\frac{7}{14}} = 4$$

$$12. 4 \div \frac{3}{5} = \frac{20}{3} = 6\frac{2}{3}$$

$$13. \frac{1}{\frac{5}{6}} = \frac{6}{5} = 1\frac{1}{5}$$

$$14. \frac{11}{4} \div 3 = \frac{11}{12}$$

$$15. 6 \div \frac{2}{5} = 15$$

$$16. \frac{\frac{18}{6}}{\frac{9}{18}} = 6$$

$$17. \frac{12}{3} \div \frac{4}{9} = 9$$

$$18. \frac{\frac{20}{5}}{\frac{10}{20}} = 8$$

$$19. \frac{2}{3} \div \frac{4}{5} = \frac{5}{6}$$

$$20. \frac{1}{\frac{6}{7}} = \frac{7}{6} = 1\frac{1}{6}$$

$$21. \frac{13}{4} \div 2 = \frac{13}{8} = 1\frac{5}{8}$$

$$22. 7 \div \frac{3}{8} = \frac{56}{3} = 18\frac{2}{3}$$

$$23. \frac{\frac{24}{8}}{\frac{12}{24}} = 6$$

$$24. \frac{3}{5} \div \frac{2}{9} = \frac{27}{10} = 2\frac{7}{10}$$

$$25. \frac{1}{\frac{7}{10}} = \frac{10}{7} = 1\frac{3}{7}$$

$$26. \frac{15}{5} \div 3 = 1$$

$$27. 8 \div \frac{4}{7} = 14$$

$$28. \frac{\frac{28}{7}}{\frac{14}{28}} = 8$$

$$29. \frac{4}{9} \div \frac{3}{6} = \frac{8}{9}$$

$$30. \frac{1}{\frac{8}{11}} = \frac{11}{8} = 1\frac{3}{8}$$

$$31. \frac{17}{4} \div 2 = \frac{17}{8} = 2\frac{1}{8}$$

$$32. 9 \div \frac{5}{12} = \frac{108}{5} = 21\frac{3}{5}$$

$$33. \frac{\frac{30}{6}}{\frac{15}{30}} = 10$$

$$34. \frac{5}{7} \div \frac{3}{8} = \frac{40}{21} = 1\frac{19}{21}$$

$$35. \frac{1}{\frac{9}{13}} = \frac{13}{9} = 1\frac{4}{9}$$

$$36. \frac{19}{5} \div 4 = \frac{19}{20}$$

$$37. 10 \div \frac{6}{14} = \frac{70}{3} = 23\frac{1}{3}$$

$$38. \frac{\frac{32}{8}}{\frac{16}{32}} = 8$$

$$39. \frac{6}{11} \div \frac{4}{9} = \frac{27}{22} = 1\frac{5}{22}$$

$$40. \frac{1}{\frac{10}{15}} = \frac{3}{2} = 1\frac{1}{2}$$

$$41. \frac{21}{6} \div 3 = \frac{7}{6} = 1\frac{1}{6}$$

$$42. 11 \div \frac{7}{16} = \frac{176}{7} = 25\frac{1}{7}$$

$$43. \frac{\frac{36}{12}}{\frac{18}{36}} = 6$$

$$44. \frac{7}{10} \div \frac{5}{12} = \frac{42}{25} = 1\frac{17}{25}$$

$$45. \frac{1}{\frac{11}{17}} = \frac{17}{11} = 1\frac{6}{11}$$

$$46. \frac{23}{5} \div 4 = \frac{23}{20} = 1\frac{3}{20}$$

$$47. 12 \div \frac{8}{19} = \frac{57}{2} = 28\frac{1}{2}$$

$$48. \frac{\frac{40}{10}}{\frac{20}{40}} = 8$$

$$49. \frac{8}{13} \div \frac{6}{17} = \frac{68}{39} = 1\frac{29}{39}$$

$$50. \frac{1}{\frac{12}{19}} = \frac{19}{12} = 1\frac{7}{12}$$

$$51. \frac{25}{6} \div 5 = \frac{5}{6}$$

$$52. 13 \div \frac{9}{20} = \frac{260}{9} = 28\frac{8}{9}$$

$$53. \frac{\frac{44}{11}}{\frac{22}{44}} = 8$$

$$54. \frac{9}{14} \div \frac{7}{21} = \frac{27}{14} = 1\frac{13}{14}$$

$$55. \frac{1}{\frac{13}{23}} = \frac{23}{13} = 1\frac{10}{13}$$

$$56. \frac{27}{7} \div 6 = \frac{9}{14}$$

$$57. 14 \div \frac{10}{24} = \frac{168}{5} = 33\frac{3}{5}$$

$$58. \frac{\frac{48}{12}}{\frac{24}{48}} = 8$$

$$59. \frac{10}{17} \div \frac{8}{23} = \frac{115}{68} = 1\frac{47}{68}$$

$$60. \frac{1}{\frac{14}{25}} = \frac{25}{14} = 1\frac{11}{14}$$

$$61. \frac{29}{8} \div 5 = \frac{29}{40}$$

$$62. 15 \div \frac{12}{26} = \frac{65}{4} = 16\frac{1}{4}$$

$$63. \frac{\frac{52}{13}}{\frac{26}{52}} = 8$$

$$64. \frac{11}{19} \div \frac{9}{25} = \frac{275}{171} = 1\frac{104}{171}$$

$$65. \frac{1}{\frac{16}{29}} = \frac{29}{16} = 1\frac{13}{16}$$

$$66. \frac{31}{9} \div 6 = \frac{31}{54}$$

$$67. 16 \div \frac{14}{28} = 32$$

$$68. \frac{\frac{56}{14}}{\frac{28}{56}} = 8$$

$$69. \frac{12}{21} \div \frac{10}{27} = \frac{54}{35} = 1\frac{19}{35}$$

$$70. \frac{1}{\frac{18}{31}} = \frac{31}{18} = 1\frac{13}{18}$$

$$71. \frac{33}{10} \div 7 = \frac{33}{70}$$

$$72. 17 \div \frac{16}{32} = 34$$

Sección 5 (Respuestas)

Nota: Las respuestas fueron obtenidas con ChatGPT o1-mini. Si encuentras algún error, repórtalo al correo: correcciones@mateducando.com

$$1. \frac{\frac{1}{4} - \frac{5}{4}}{\frac{7}{2}} = -\frac{2}{7}$$

$$2. \frac{3 + \frac{5}{2}}{66} = \frac{1}{12}$$

$$3. \frac{5}{7} \left(\frac{1}{\left(\frac{21}{2}\right)} \right) = \frac{10}{147}$$

$$4. \frac{4\left(\frac{7}{8}\right)}{4/5} = \frac{7}{2} = 3\frac{1}{2}$$

$$5. (5) \left(\frac{-9}{10} \right) \left(\frac{12}{\frac{7}{2} + \frac{5}{2}} \right) = -9$$

$$6. \frac{\frac{1}{5/7} + 1}{\frac{1}{6/11} \left(\frac{4}{5}\right)} = \frac{18}{11} = 1\frac{7}{11}$$

$$7. 1 + \frac{1}{7/2} = \frac{9}{7} = 1\frac{2}{7}$$

$$8. 5 - \frac{1}{4/3} = \frac{17}{4} = 4\frac{1}{4}$$

$$9. \frac{1}{\frac{14}{5} - \frac{33}{10}} = -2$$

$$10. \frac{4\left(\frac{20}{8}\right)\left(\frac{7}{15}\right)}{\frac{7}{8} - \frac{5}{2}} = -\frac{112}{39} = -2\frac{34}{39}$$

$$11. \frac{\frac{1}{8/9} - \frac{7}{8}}{2\left(\frac{4}{5}\right) - \left(\frac{3}{2}\right)\left(\frac{2}{5}\right)} = \frac{1}{4}$$

$$12. \frac{2/3}{4/25} + \frac{5}{6} - \frac{3}{\frac{5}{12} - \frac{1}{4}} = -13$$

$$13. \frac{1}{1 - \frac{1}{1 - \frac{1}{7/4}}} = -\frac{3}{4}$$

Ejercicios de repaso:

$$14. \frac{\frac{1}{3} - \frac{5}{6}}{\frac{8}{3}} = -\frac{3}{16}$$

$$15. \frac{2 + \frac{4}{3}}{45} = \frac{2}{27}$$

$$16. \frac{3}{5} \left(\frac{1}{\frac{12}{5}} \right) = \frac{1}{4}$$

$$17. \frac{3\left(\frac{5}{7}\right)}{3/4} = \frac{20}{7} = 2\frac{6}{7}$$

$$18. (4) \left(\frac{-6}{7} \right) \left(\frac{10}{\frac{5}{2} + \frac{7}{3}} \right) = -\frac{1440}{203} = -7\frac{19}{203}$$

$$19. \frac{\frac{1}{6/9} + 1}{\frac{1}{5/12} \left(\frac{3}{4}\right)} = \frac{25}{18} = 1\frac{7}{18}$$

$$20. 1 + \frac{1}{5/3} = \frac{8}{5} = 1\frac{3}{5}$$

$$21. 6 - \frac{1}{3/4} = \frac{14}{3} = 4\frac{2}{3}$$

$$22. \frac{1}{\frac{10}{4} - \frac{5}{8}} = \frac{8}{15}$$

$$23. \frac{3\left(\frac{15}{7}\right)\left(\frac{9}{12}\right)}{\frac{6}{7} - \frac{8}{5}} = -\frac{675}{104} = -6\frac{51}{104}$$

$$24. \frac{\frac{1}{5/6} - \frac{8}{7}}{3\left(\frac{5}{8}\right) - \left(\frac{2}{3}\right)\left(\frac{3}{7}\right)} = \frac{112}{3115}$$

$$25. \frac{1/2}{3/14} + \frac{4}{7} - \frac{2}{\frac{7}{15} - \frac{3}{5}} = \frac{376}{21} = 17\frac{19}{21}$$

$$26. \frac{1}{1 - \frac{1}{1 - \frac{1}{5/2}}} = -\frac{3}{2} = -1\frac{1}{2}$$

$$27. \frac{\frac{2}{5} - \frac{1}{3}}{\frac{4}{9}} = \frac{3}{20}$$

$$28. \frac{5 + \frac{3}{4}}{72} = \frac{23}{288}$$

$$29. \frac{6}{11} \left(\frac{1}{\frac{9}{2}} \right) = \frac{4}{33}$$

$$30. \frac{5\left(\frac{9}{7}\right)}{5/6} = \frac{54}{7} = 7\frac{5}{7}$$

$$31. (2) \left(\frac{-7}{8} \right) \left(\frac{14}{\frac{6}{4} + \frac{8}{5}} \right) = -\frac{245}{31} = -7\frac{28}{31}$$

$$32. \frac{\frac{1}{7/8} + 1}{\frac{1}{8/15} \left(\frac{9}{10}\right)} = \frac{80}{63} = 1\frac{17}{63}$$

$$33. 1 + \frac{1}{9/5} = \frac{14}{9} = 1\frac{5}{9}$$

$$34. 8 - \frac{1}{5/2} = \frac{38}{5} = 7\frac{3}{5}$$

$$35. \frac{1}{\frac{12}{5} - \frac{19}{10}} = 2$$

$$36. \frac{7\left(\frac{25}{6}\right)\left(\frac{4}{9}\right)}{\frac{9}{4} - \frac{6}{5}} = \frac{1000}{81} = 12\frac{28}{81}$$

$$37. \frac{\frac{1}{9/8} - \frac{5}{9}}{4\left(\frac{5}{7}\right) - \left(\frac{8}{9}\right)\left(\frac{1}{4}\right)} = \frac{21}{166}$$

$$38. \frac{5/6}{7/25} + \frac{2}{9} - \frac{4}{\frac{7}{20} - \frac{5}{12}} = \frac{7963}{126} = 63\frac{25}{126}$$

$$39. \frac{1}{1 - \frac{1}{1 - \frac{1}{7/3}}} = -\frac{4}{3} = -1\frac{1}{3}$$

$$40. \frac{\frac{3}{4} - \frac{2}{7}}{\frac{5}{8}} = \frac{26}{35}$$

$$41. \frac{4 + \frac{2}{5}}{50} = \frac{11}{125}$$

$$42. \frac{7}{13} \left(\frac{1}{\frac{11}{3}} \right) = \frac{21}{143}$$

$$43. \frac{8\left(\frac{7}{9}\right)}{8/11} = \frac{77}{9} = 8\frac{5}{9}$$

$$46. 1 + \frac{1}{8/3} = \frac{11}{8} = 1\frac{3}{8}$$

$$50. \frac{\frac{1}{6/5} - \frac{9}{11}}{5\left(\frac{9}{11}\right) - \left(\frac{7}{6}\right)\left(\frac{8}{7}\right)} = \frac{1}{182}$$

$$44. (3) \left(\frac{-8}{9}\right) \left(\frac{15}{\frac{8}{3} + \frac{5}{4}}\right) = -\frac{480}{47} = -10\frac{10}{47}$$

$$47. 7 - \frac{1}{6/5} = \frac{37}{6} = 6\frac{1}{6}$$

$$51. \frac{3/5}{5/16} + \frac{7}{12} - \frac{6}{\frac{8}{17} - \frac{5}{14}} = -\frac{3105}{126} = -24\frac{105}{126}$$

$$45. \frac{\frac{1}{9/12} + 1}{\frac{1}{7/10}\left(\frac{8}{9}\right)} = \frac{147}{80} = 1\frac{67}{80}$$

$$48. \frac{1}{\frac{15}{7} - \frac{28}{9}} = -\frac{63}{61}$$

$$49. \frac{6\left(\frac{35}{9}\right)\left(\frac{5}{6}\right)}{\frac{9}{7} - \frac{8}{3}} = -\frac{735}{52} = -14\frac{7}{52}$$

$$52. \frac{1}{1 - \frac{1}{1 - \frac{1}{7/3}}} = -\frac{4}{3} = -1\frac{1}{3}$$

Revisa la playlist de “El Club de la Matemática” en el link https://youtube.com/playlist?list=PL-SETmeZ3ceE9wmmoe1eP1n&si=eVx9iZyIfM_K5Dpi

Puedes consultar las clases de fracciones en el siguiente link: https://youtube.com/playlist?list=PL-SETmeZ3ceGpYju-&si=bP826foCS6yc1DA_

También puedes solicitar asesorías de matemáticas o apoyar este proyecto en: <https://linktr.ee/mateducando>