1) $\dfrac{\left(5^3.5^{-2}\right)^0.5^7.(-5)^2}{4^2.4^{-1}.\dfrac{1}{4^3}.(-4)^8} =$

2) $\dfrac{-8.2^4.\dfrac{1}{16}}{\sqrt{64}.\sqrt{16}.2^7} =$

3) $\sqrt{\dfrac{16}{4}}.(-4)^4.16.\dfrac{1}{4}.\dfrac{1}{2^{-5}} =$

4) $\sqrt{\dfrac{1}{9}.(-3)^{14}.27.\dfrac{1}{3}}.\sqrt{81} =$

5) $\sqrt[3]{27}.\sqrt[3]{64} =$

6) $\dfrac{(-5).(-5).25}{(-125).5^{-3}.5^2} =$

7) $\dfrac{\left(7^2\right)^3.49.\dfrac{1}{7}}{(-7).(-7)} =$

8) $\dfrac{(-125)^0.(-3)^7.(-4)^7}{12} =$

9) $\dfrac{\left(5^3.3^3\right)^2}{12} =$

10) $\dfrac{\left(7.7^{-1}\right)^{-2}.5^3:5^{-1}}{(-5)^2} =$

11) $\dfrac{\left(\dfrac{1}{2}\right)^0-\left(\dfrac{2}{3}+\dfrac{1}{6}\right)^2}{37^0-\left(\dfrac{1}{2}\right)^{-1}} =$

12) $\left(\dfrac{3}{5}\right)^{-2}+\dfrac{2}{3}.\dfrac{1}{7}-1 =$

13) $\left(\dfrac{4}{5}-\dfrac{2}{3}\right):\left(-\dfrac{1}{6}+\dfrac{9}{5}\right) =$

14) $\dfrac{5}{9}-3:\left(-\dfrac{1}{5}\right)+\dfrac{3}{2}.7 =$

15) $\left[\left(\dfrac{1}{2}\right)^{-2}-\dfrac{1}{4}.\dfrac{1}{3}\right]:12 =$

16) $\dfrac{\left(1-\dfrac{1}{2}\right)^2-1}{\sqrt{\dfrac{4}{9}-1}}-(-53)^0=\dfrac{5}{4}$

17) $-\dfrac{2}{5}\left[4+\dfrac{2}{3}.\dfrac{7}{4}-\left(-\dfrac{1}{2}\right):3\right] =$

18) $\left(\dfrac{2}{3}\right)^{-2}-\left(-\dfrac{1}{2}\right)^{-3}+\left[\left(-\dfrac{1}{2}\right)^{-3}\right]^{-1} =$

19) $\dfrac{2}{5}-\left[-2\left(-1+\dfrac{3}{2}\right)+\dfrac{2}{5}\right] =$

20) $\dfrac{\sqrt{\dfrac{1}{4}}-\sqrt{9}}{-\sqrt{\dfrac{9}{16}}-1}-\left(\dfrac{1}{2}\right)^{-2} =$

21) $\left(\dfrac{1}{4}-\dfrac{1}{2}\right):\left(1+\sqrt{\dfrac{1}{16}}\right)-\left(\dfrac{1}{2}\right)^2+\dfrac{1}{2}-1 =$

22) $\left(\dfrac{1}{3}:\dfrac{5}{2}\right)-\left(\dfrac{2}{31}:\dfrac{1}{2}\right)-\sqrt{\dfrac{1}{4}}-1 =$

23) $\dfrac{-\dfrac{2}{3}+\dfrac{1}{2}}{\sqrt{\dfrac{4}{9}-(-1)}}+1 =$

24) $\left[\left(\dfrac{1}{2}\right)^2\right]^2.\left[\left(\dfrac{1}{2}\right)^4\right]^2.\left[\left(\dfrac{1}{2}\right)^{-1}\right]^{-3} =$

25) $\left(\dfrac{10}{2}\right)^2+\dfrac{7}{4} =$

26) $\left(7.7^{-1}\right)^{-2}.\left(\dfrac{125}{7}.\dfrac{425}{3}\right)^0.\left(3^0\right)^{-1}.2^0 =$

27) $\dfrac{\sqrt{3}.\sqrt{3}}{\sqrt{2}.\sqrt{2}}+\dfrac{\sqrt{5}.\sqrt{5}}{\sqrt{7}.\sqrt{7}} =$

28) $\dfrac{\sqrt[3]{81}}{\sqrt[3]{3}} =$

29) $\sqrt{3}.\sqrt{12}.\sqrt{36} =$

30) $\sqrt{54-63} =$

31) $\sqrt{-54+63} =$

32) $\dfrac{(-6)^3:(-6)^{-1}}{(-3):(-3)^{-1}}.\left(2^2:7^2\right) =$

33) $\dfrac{3:3^{-10}}{4^7:4^{10}} =$

34) $\dfrac{1}{2}-\left(\dfrac{2}{3}+\dfrac{5}{6}\right)^2-\sqrt{\dfrac{1}{9}} =$

35) $\dfrac{3}{4}.\left(-\dfrac{1}{4}+\dfrac{2}{8}\right)+\sqrt[3]{-8}+\dfrac{1}{3}:3 =$

36) $-\dfrac{2}{15}+\left(-\dfrac{1}{5}\right)^2-(-2)^0+\left(-\dfrac{4}{5}\right).\dfrac{25}{2} =$

37) $-\left(\dfrac{-2}{6}\right)+\dfrac{1}{2}:\dfrac{5}{12}+\left(\dfrac{-1}{3}\right)^2+\dfrac{2}{3}.3 =$

38) $\dfrac{2}{3}:\left(\dfrac{1}{3}\right)^{-2}-\left(1-\dfrac{1}{2}\right)^2 =$

39) $\left(\dfrac{1}{3}-\dfrac{1}{2}\right):\left(2+\sqrt{\dfrac{1}{16}}\right)-\left(\dfrac{3}{2}\right)^2+\dfrac{1}{2} =$

40) $\left(\dfrac{1}{3}:\dfrac{1}{2}\right)-\left(\dfrac{1}{4}:\dfrac{3}{2}\right)-\sqrt{\dfrac{1}{9}} =$

41) $\dfrac{1-\left(1-\dfrac{1}{2}\right)^2}{\sqrt{\dfrac{25}{4}}-\sqrt{\dfrac{1}{4}}}-(-1) =$

42) $\left[\left(-\dfrac{1}{2}\right)^3\right]^4:\left(-\dfrac{1}{2}\right)^{-5} =$

43) $53^0-\left(-\dfrac{1}{3}\right)-\left(-\dfrac{1}{2}\right)+\left(\dfrac{-1}{2}\right)^2-\sqrt{\dfrac{1}{9}} =$

44) $\left(\dfrac{2}{4}\right)^{-2}+\left(\dfrac{-1}{2}\right)^{-1}+\left(-\dfrac{3}{2}\right)^{-2} =$

45) $\dfrac{\left(\dfrac{3}{2}\right)^{-1}+\left(\dfrac{43}{8}\right)^0}{\sqrt{\dfrac{4}{9}}-(-2)}+\left(\dfrac{50}{9}\right)^0 =$

46) $\left(\dfrac{4}{2}\right)^{-2}-\left(\dfrac{-1}{2}\right)^{-1}+\left(\dfrac{1}{2}\right)^2-5^0 =$

47) $\left(\dfrac{1}{2}\right)^2-\left(\dfrac{2}{3}\right)^0+\left(1-\dfrac{1}{2}\right)^2-\dfrac{3}{4}=\dfrac{-5}{4}$

48) $\sqrt[3]{\dfrac{1}{8}}-\left(\dfrac{1}{3}\right)^3+\left(\dfrac{-2}{3}\right)^0-\left(\dfrac{-2}{3}\right)^2=\dfrac{55}{54}$

49) $\dfrac{2}{3}:\dfrac{4}{5}.2+3.\dfrac{1}{2}-\dfrac{4}{3}=\dfrac{11}{6}$

50) $\dfrac{7}{3}-\left(2-\dfrac{1}{2}\right)^2-3\left[-2\left(\dfrac{1}{2}:3\right)+1\right]=\dfrac{-23}{12}$

51) $-4+\left(\dfrac{3}{2}\right)^2-(-2)^3+\left(1-\dfrac{1}{2}\right)^2.2=\dfrac{27}{4}$

52) $\dfrac{50^2.45^3.5^4}{27^4.25}=\dfrac{2^2.5^9}{3^6}$

53) $\dfrac{100^3.16^2}{75^4.32}=\dfrac{2^9}{3^4.5^2}$

54) $\dfrac{9^4.49^3.15}{147^2.81^3}=\dfrac{5.7^2}{3^5}$

55) $\dfrac{\left(a^3\right)^2.\left(b^4\right)^3.a^4}{\left(b^7\right)^2.\left(a^2\right)^2}=\dfrac{a^6}{b^2}$

56) $\left[\left(\dfrac{2}{3}\right)^2\right]^4:\left(\dfrac{2}{3}\right)^6-\left(\dfrac{2}{3}\right)^0=-\dfrac{5}{9}$

57) $\left(-\dfrac{1}{3}\right)^3:\left(\dfrac{-1}{3}\right)^2+2^{-2}.2^4=\dfrac{11}{3}$

58) $\left(-\dfrac{2}{5}\right)^2+\left(\dfrac{1}{5}\right)^2-3^{-2}.3^2=\dfrac{1}{5}.3^{-4}$

59) $\left(\dfrac{2}{5}-1\right).5-\dfrac{3}{4}:\dfrac{1}{2}+3:\dfrac{1}{3}-2.\dfrac{1}{2}:3=\dfrac{25}{6}$

60) $\dfrac{8.2^4.(-2)^2}{\sqrt{64}.\sqrt{16}} =$

61) $125.\left[\left(-5\right)^3\right]^2.\frac{1}{625}.5^7 =$

62) $2^3.\left(-2\right).2^4.\left(-2\right)^3.125^0.\left(-12\right)^0 =$

63) $\frac{\sqrt[3]{27}.\sqrt[3]{64}.12^7}{12^0.\left(-12\right)^4} =$

64) $\frac{\sqrt{16}}{\sqrt{49}}+\frac{\sqrt{16}}{\sqrt{49}}-\frac{\sqrt{25}}{\sqrt{81}}+\frac{\sqrt{36}}{\sqrt{81}} =$

65) $\left(\frac{6}{7}:5\right)-\left(\frac{1}{3}:\frac{3}{4}\right)-\left(\frac{7}{20}\right)^{-1} =$

66) $3-\left(\frac{1}{2}-\frac{1}{5}\right)+\frac{7}{3}+\left(\sqrt[12]{7^4}\right)^{\frac{21}{7}} =$

67) $\left(\frac{11}{4}\right)^{-2}.\left(\frac{11}{4}\right)^3.\left(\frac{4}{11}\right)^{\frac{2}{3}}.\left(\frac{11}{4}\right)^7.\left(\frac{11}{4}\right)^0$

68) $\left(\frac{2}{3}\right)^{-2}-\left(-\frac{1}{2}\right)^{-3}+\left[\left(-\frac{1}{2}\right)^{-3}\right]^{-1}=\frac{81}{8}$

69) $\frac{2}{5}-\left[-2\left(-1+\frac{3}{2}\right)+\frac{2}{5}\right]+\sqrt[20]{\left[\left(2^3\right)^{\frac{5}{4}}\right]^{\frac{16}{3}}}=3$

TEMA 4

Resuelve y expresa en forma de fracción

1) $1,36-3,2\widehat{5}$

2) $2,3\widehat{9}-0,25$

3) $2,0333333-1,11111...$

4) $2,4-3,16666....$

5) $1,0444444...-3,22222....$

6) $6,273-5,56$

Expresa en forma de decimal

7) $\frac{9}{4}$

8) $\frac{8}{3}$

9) $\frac{95}{90}$

10) $\frac{327}{100}$

Expresa _ en _ forma _ de _ fracción

11) $6,427427427427...$

12) $2,741741741...$

13) $0,02$

14) $5,333333...$