Calculator Team 2017- Team Member #1

Place your answer on the appropriate blank of the answer sheet. Give an exact answer whenever possible. Otherwise, round to 3 decimal places.

1. Let $f(x) = x^3 - 2x^2 - x + 1$. Find $f(-0.73)$.

2. What is the remainder of 76212 divided by 19?

3. Compute $\left(\frac{5.126}{7.391} + 0.649\right) \times 1.371$.

4. Compute $1.27 \times \left[2.53(0.38 + 0.81)^2 + \frac{3.72}{1.18}\right]$.

5. Compute $\frac{10!}{5!5!} \times \frac{3!4!}{7!} \times \frac{2!3!}{6!}$.

6. Compute $\log_5(75150) \times \log_5(125)$.

7. Compute $\ln\left(e^3\right) \times e^{1.142}$.

8. Compute $\frac{1}{3}\left\{(1.51 - 2.345)^2 + (2.96 - 2.345)^2 + (2.52 - 2.345)^2 + (2.39 - 2.345)^2\right\}$.

9. Find the sum $\log_{10}(1) - \log_{10}\left(2^2\right) + \log_{10}\left(3^3\right) - \log_{10}\left(4^4\right) + \log_{10}\left(5^5\right)$.

10. Find the sum $1 + \frac{3}{3!} + \frac{20}{5!} + \frac{42}{7!}$.

11. Compute $\sqrt{\left(\sqrt{40.4} - 2\sqrt{1.1}\right)\left(\sqrt{40.4} + \sqrt{4.4}\right)}$.

12. Compute $(4.27 - 2.35)\left(4.27^2 + (4.27)(2.35) + 2.35^2\right)$.

13. Compute $0.3 + 0.3(0.5) + 0.3(0.5)^2 + 0.3(0.5)^3 + 0.3(0.5)^4 + 0.3(0.5)^5$.

14. Compute $\frac{e^{-1.357}(1.357)^0}{0!} + \frac{e^{-1.357}(1.357)^1}{1!} + \frac{e^{-1.357}(1.357)^2}{2!}$.

15. Compute $\sqrt[5]{14.47}$.

Calculator Team 2017- Team Member #2

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16. Let $f(x) = 2x^3 - 3x^2 + x - 1$. Find $f(-0.97)$.

17. What is the remainder of 163715 divided by 13?

18. Compute $\left(\frac{65.737}{24.654} - 1.671\right) \times 0.378$.

19. Compute $2.64 \times \left[1.24(4.82 - 3.43)^3 + \frac{2.846}{2.043}\right]$.

20. Compute $\frac{11!}{5!\,6!} \times \frac{4!4!}{8!} \times \frac{2!2!}{5!}$.

21. Compute $\log_{10}(0.1) \times \log_{10}(0.01) \times \log_{10}(91.9)$.

22. Compute $e^{1.14} \times e^{-\ln 0.125} \times \ln\left(e^3\right)$.

23. Compute $\frac{1}{3}\left\{(0.85 - 2.165)^2 + (2.59 - 2.165)^2 + (2.35 - 2.165)^2 + (2.87 - 2.165)^2\right\}$.

24. Compute $\log_{10}\left(10^2\right) \times \log_{10}\left(7^3\right) \times \log_{10}\left(5^4\right) \times \log_{10}\left(3^5\right)$.

25. Find the sum $1 + \frac{e}{1!} + \frac{e^2}{2!} + \frac{e^3}{3!}$.

26. Compute $\sqrt[5]{75.39}$.

27. Compute $\left[1.277e^{-(2.177)^3}\right](7!)$.

28. Compute $\sqrt{\left(3\sqrt{1.21}\right)\left(1.83 + \sqrt{2.25}\right)}$.

29. Compute $(3.71 + 2.13)\left(3.71^2 - (3.71)(2.13) + 2.13^2\right)$.

30. Compute $1 + 2(0.8) + 3(0.8)^2 + 4(0.8)^3 + 5(0.8)^4 + 6(0.8)^5$

Calculator Team 2017- Team Member #3

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31. Let $f(x) = -3x^3 + x^2 + 3x + 2$. Find $f(1.37)$.

32. What is the remainder of 474972 divided by 27?

33. Compute $\left(\frac{5.729}{8.316} + 0.624\right) \times 2.391$.

34. Compute $3.91 \times \left[9.13(2.49 - 2.76)^2 + 1.719\right]^2$.

35. Compute $\frac{3!4!}{7!} \times \frac{9!}{5!\,4!} \times \frac{2!1!}{4!}$.

36. Compute $\log_3(2187) \times \log_3(6)$.

37. Compute $\ln\left(e^{7.38}\right) \times e^{\ln(0.125)} \times \ln\left(\frac{1}{e}\right)$.

38. Compute $\frac{1}{3}\left\{(2.34 - 2.975)^2 + (3.21 - 2.975)^2 + (1.73 - 2.975)^2 + (4.62 - 2.975)^2\right\}$.

39. Compute $\{\ln(30) + \ln 36 + \ln(60)\} - \{\ln(15) + \ln(18) + \ln(30)\}$.

40. Find the sum $\left[1 + 3^2 + 3^4 + 3^6 + 3^8\right] \div \left[3^2 - 1\right]$.

41. Compute $\sqrt[3]{917.3}$.

42. Compute $e^{-1.234}(1.739)^1 + e^{-1.234}(1.739)^2 + e^{-1.234}(1.739)^3 + e^{-1.234}(1.739)^4$.

43. Compute $\sqrt{\left(5.8 + 2\sqrt{4.1}\right)\left(8.2 - \sqrt{16.4}\right)}$.

44. Compute $(2.6 + 2.4)\left(2.6^2 + (2.6)(2.4) + 2.4^2\right)$.

45. Compute $0.4 + 0.4(0.5) + 0.4(0.5)^2 + 0.4(0.5)^3 + 0.4(0.5)^4$.

Calculator Team 2017- Team Member #4

Place your answer on the appropriate blank of the answer sheet. Give an exact answer whenever possible. Otherwise, round to 3 decimal places.

46. Let $f(x) = 5x^3 - x^2 - 2x + 3$. Find $f(-1.74)$.

47. What is the remainder of 313131 divided by 23?

48. Compute $\left(\frac{5.716}{2.163} - 1.217\right) \times 1.951$.

49. Compute $3.54 \times \sqrt{\left[2.97\left(5.69 + 4.31\right)^2 + 0.97\right]}$.

50. Compute $\frac{10!}{3!\,7!} \times \frac{2!4!}{6!} \times \frac{3!3!}{5!}$.

51. Compute $\log_2(8) \times \log_2(0.5) \times \log_2(0.125)$.

52. Compute $e^{-\ln(1.35)} \times e^{1.25} \times \ln(2e)$.

53. Compute $\frac{1}{4}\left\{(1.74 - 2.315)^2 + (2.49 - 2.315)^2 + (3.21 - 2.315)^2 + (1.82 - 2.315)^2\right\}$.

54. Compute $\left\{\log_3\left(\frac{1}{3}\right) \times \log_3(9) \times \log_3(243)\right\} - \left\{\log_2(2) \times \log_2(4)\right\}$.

55. Find the sum $1 + 1.21^2 + 1.21^4 + 1.21^6 + 1.21^8 + 1.21^{10}$.

56. Compute $\sqrt[4]{2.29}$.

57. Compute $e^{-1.034}(3.179)^0 + e^{-1.034}3.179^1 + e^{-1.034}(3.179)^2 + e^{-1.034}(3.179)^3$.

58. Compute $\sqrt{\left(\sqrt{10.4} - \sqrt{8.4}\right)\left(\sqrt{10.4} + 2\sqrt{2.1}\right)}$.

59. Compute $(7.3 + 2.7)\left(7.3^2 + (7.3)(2.7) + 2.7^2\right)$.

60. Compute $0.3 + 0.3(0.5) + 0.3(0.5)^2 + 0.3(0.5)^3 + 0.3(0.5)^4 + 0.3(0.5)^5$.