

Calculator Team 2019- 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 $f(-0.23)$.
2. What is the remainder of 76220 divided by 19?
3. Compute $\left(\frac{5.236}{7.351} + 0.649\right) \times 1.372$.
4. Compute $2.71 \times \left[2.53(0.19 + 0.81)^2 + \frac{3.54}{1.18}\right]$.
5. Compute $\frac{10!}{5!5!} \times \frac{3!4!}{7!} \times \frac{2!3!}{6!}$.
6. Compute $\log_5(390000) \times \log_5(125)$.
7. Compute $\ln(e^{2.35}) \times e^{1.142}$.
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 $\log_{10}(1) - \log_{10}(2^2) + \log_{10}(3^3) - \log_{10}(4^4) + \log_{10}(5^5)$.
10. Find the sum $1 + \frac{3}{3!} + \frac{20}{5!} + \frac{30}{6!}$.
11. Compute $\sqrt{(\sqrt{40.4} - 2\sqrt{1.1})(\sqrt{40.4} + \sqrt{4.4})}$.
12. Compute $(4.27 - 2.73)(4.27^2 + 2(4.27)(2.73) + 2.73^2)$.
13. Compute $0.3 + 0.3(0.7) + 0.3(0.7)^2 + 0.3(0.7)^3 + 0.3(0.7)^4$.
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 $\sqrt[5]{71.671}$.

Calculator Team 2019- 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 163460 divided by 13?
18. Compute $\left(\frac{61.728}{24.654} - 1.671\right) \times 0.374$.
19. Compute $2.64 \times \left[1.24(4.82 - 3.82)^3 + \frac{2.846}{2.043}\right]$.
20. Compute $\frac{11!}{5!6!} \times \frac{4!4!}{8!} \times \frac{2!2!}{5!}$.
21. Compute $\log_{10}(10) \times \log_{10}(0.1) \times \log_{10}(91.7)$.
22. Compute $e^{1.92} \times e^{-\ln 0.125} \times \ln(e^3)$.
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 $\log_{10}(10^2) \times \log_{10}(7^3) \times \log_{10}(5^4) \times \log_{10}(3^5)$.
25. Find the sum $1 + \frac{e}{1!} + \frac{e^2}{2!} + \frac{e^3}{3!}$.
26. Compute $\sqrt[5]{67.939}$.
27. Compute $\left[1.273e^{-(2.173)^3}\right](7!)$.
28. Compute $\sqrt{(3\sqrt{1.21})(1.83 + \sqrt{2.25})}$.
29. Compute $(4.71 + 2.13)(4.71^2 - (4.71)(2.13) + 2.13^2)$.
30. Compute $1 + 2(0.6) + 3(0.6)^2 + 4(0.6)^3 + 5(0.6)^4 + 6(0.6)^5$

Calculator Team 2019- Team Member #3

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31. Let $f(x) = -3x^3 + x^2 + 3x + 2$. Find $f(1.34)$.
32. What is the remainder of 495100 divided by 27?
33. Compute $\left(\frac{5.729}{8.316} + 1.624\right) \times 2.391$.
34. Compute $3.91 \times \left[9.13(2.49 - 1.49)^2 + 1.719\right]^2$.
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 $\ln(e^{7.38}) \times e^{\ln(0.125)} \times \ln\left(\frac{1}{e}\right)$.
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 $\{ \ln(30) + \ln(36) + \ln(90) \} - \{ \ln(15) + \ln(18) + \ln(45) \}$.
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 $\sqrt{(5.8 + 2\sqrt{4.1})(8.2 - \sqrt{16.4})}$.
44. Compute $(2.6 + 2.4)(2.6^2 + (2.6)(2.4) + 2.4^2)$.
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 2019- 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 $f(-1.94)$.
47. What is the remainder of 313144 divided by 23?
48. Compute $\left(\frac{5.265}{2.163} - 1.217\right) \times 1.951$.
49. Compute $3.54 \times \sqrt{\left[2.97(5.17 + 4.83)^2 + 0.97\right]}$.
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 $1 + 1.23^2 + 1.23^4 + 1.23^6 + 1.23^8 + 1.23^{10}$.
56. Compute $\sqrt[4]{27.509}$.
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 $\sqrt{(\sqrt{10.4} - \sqrt{8.4})(\sqrt{10.4} + 2\sqrt{2.1})}$.
59. Compute $(7.3 + 2.7)(7.3^2 + (7.3)(2.7) + 2.7^2)$.
60. Compute $0.3 + 0.3(0.5) + 0.3(0.5)^2 + 0.3(0.5)^3 + 0.3(0.5)^4 + 0.3(0.5)^5$.