MATHCOUNTS®

2024 STATE COMPETITION Answer Key

The appropriate units (or their abbreviations) are provided in the answer blanks.

Note to coordinators: Answers to the Tiebreaker Round problems appear in the Tiebreaker Round Booklet.

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Sprint Round

1. _ 19

6. \$ 4.35

11. 64 fee

2. \$ 2.40

7. 39π cm²

12. 6 kg

3. 3

8. 512 ounces

 $\frac{8}{11}$ hours

4. __36____

9. 24

14. 144 round trips

5. 4 words

10. 80 %

15. <u>15</u> degrees

Sprint Round

16. -1

21. __73

26. <u>94</u> 3

17. 15

22. 16

 $27. \ \underline{325\pi} \ cm^2$

28. <u>72</u> factors

29. $4\sqrt{10}$ units²

 $\frac{5}{3}$

- 24. <u>35</u> 6

25. $2\sqrt{13}$ units

 $20. \quad 100\pi \qquad m^3$

19. 40

30. 3469

	Target Round						
1.	12 ounces	3. 56 people	5. 5465 mush-rooms	7. <u>14 cm</u>			
2.	65 cm	4. 3.1 years	6. 6.21 cm	8. <u>6.96</u> %			

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Team Round

1. <u>2.24</u> miles

6. -30

2. 23 cents

7. __181

3. 6 terms

8. <u>1024</u> 1033

4. <u>29</u> points

9. 52 integers

5. $\sqrt{29}$ cm

10. 570 cm²

Countdown Round

- 91
- 1. <u>216</u>
- 2. 4
- 3. 27 (boxes)
- 4. 18 (years old)
- 5. 65
- 6. 128
- 7. 9 (sides)
- 8. 9 (pencil packs)
- 9. 215 (minutes)
- 10. 21 (pounds)
- 11. 190
- 12. 36
- 13. 5
- 14. 625
- 15. $\overline{256}$
- 16. 33 (dollars)
- 17. 247 (miles)
- 18. 63 (in²)
- 19. -8
- 20. 18 (lines)

- 21. 21 (pink Martians)
- 22. 24
- 23. 11
- 24. 20 (cornstalks)
- 25. 480 (ways)
- 26. 4
- 27. 11 (integers)
- 28. 25 (posts)
- 29. 120 (degrees)
- 30. 10
- 31. 19 (elements)
- 32. 37
- 33. 65 (%)
- 34. 144 (degrees) 49
- 35. __4
- 36. 552
- 37. 8 (years)
- 38. 200,000
- 39. 4
- 40. 1 (prime number)

Countdown Round

- 41. 27 (chicken wings)
- 42. 12 (perfect cubes)
- 43. 15 (inches)
- 44. $\frac{56}{3\pi}$
- 45. $\frac{}{2}$ (ft²)
- 46. __3
- 47. 324
- 48. 1.17
- 49. 24 (minutes)
- 50. ___3____
- 51. 9
- 52. 124 (in²)
- 53. 20
- 54. 31 (perfect squares)
- 55. 21
- 56. 128 (meters)
- 57. 548.8 (ounces)
- 58. 248 (integers)
- 59. <u>10</u>
- 60. 8

- 61. 6 (days)
- 62. __180
- 63. 48____
- 64. -2____
- 65. 10
- 66. 183
- 67. 225 (%)
- 68. 55 (marbles)
- 69. 178
- 70. 82
- 71. 17 (dollars)
- 72. 5 (cupcakes)
- 73. 91
- 74. 16 (dollars)
- 75. 3360 (arrangements)
- 76. 18 (degrees)
- 77. 13
- 78. 49
- 79. 16 (units²)
- 80. 294