
MATHCOUNTS®

2005

■ State Competition ■
Answer Key

New this year: 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. 48 units

2. 21

3. 3961

4. 68 hours

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

6. 54 gallons

7. $\frac{6}{7}$

8. 8 meals

9. 4

10. L

11. 47

12. $\frac{21\pi}{2}$ or $\frac{21}{2}\pi$
sq inches

13. 8 patterns

14. \$ 139 or 139.00

15. $\frac{1}{9}$

16. 30

17. 81 teachers

18. \$ 3.25

19. 10 dimes

Sprint Round

20. 120 sq cm

21. 16 integers

22. 15

23. $\frac{11}{15}$ days

24. 324 marbles

25. 42 sq units

26. 76 points

27. 32 sq cm

28. 3

29. 1624 sq units

30. 112.5 degrees

Target Round

1. 33.9 centimeters

3. 500 soldiers

5. 2.53 units

7. $\frac{3}{16}$

2. 43 seconds

4. 112,875 cases

6. 7 rows

8. 40 minutes

Team Round

1. 20 meters

2. 13,709,045

3. 84 sequences

4. 8 years

5. 3 hours

6. 45 degrees

7. 7 integers

8. 2688 ways

9. $\frac{7}{5}$

10. 5 ways

Countdown Round

1. -72

2. 21 (centimeters)

3. 7

4. -10

5. 4

6. 30 (km per hour)

7. 73 (percent)

8. 36

9. 124

10. 5 (inches)

11. 4 (pounds)

12. 20 (degrees)

13. $\frac{5}{18}$

14. 2

15. 2 (dollars)

16. 7004

17. 14

18. $\frac{1}{2}$

19. $\frac{3}{5}$

20. 25 (percent)

21. -4

22. 2

23. 1250

24. $\frac{3}{5}$

25. 12

26. (segment) CD or DC

27. 5

28. 4

29. 32 (hamsters)

30. $2\sqrt{5}$ (inches)

31. 1461 (days)

32. 17

33. 114 (square units)

34. 18 (hours)

35. 65 (percent)

36. 12

37. 15 (units)

38. 97 (points)

39. $\frac{32}{5}$

40. $\frac{8}{8}$

Countdown Round

41. $2^{70,000}$

42. 41

43. 70

44. $1\frac{4}{35}$

45. 6000 (integers)

46. 3

47. 72 (inches)

48. 7

49. 28 (cars)

50. $\frac{125}{91}$ (integers)

51. $\frac{91}{216}$

52. 402 (toothpicks)

53. 27

54. $\frac{5}{2}$

55. 2009

56. 2250 (combinations)

57. 216 (cubic
centimeters)

58. 20

59. -2 (degrees Celsius)

60. 81 (integers)

61. $\frac{1}{2}$

62. 14

63. -6

64. 10,000 (dollars)

65. $\frac{1}{3}$

66. 129

67. $\frac{19}{30}$

68. 210 (degrees)

69. 15 (angles)

70. $\frac{1}{12}$

71. $\frac{2}{3}$

72. $2x$

73. $\frac{15}{7}$

74. $\frac{7}{8}$

75. $\frac{1}{2}$

76. 2 (values)

77. -89

78. 729

79. 10

80. 27 (cubic
centimeters)