
MATHCOUNTS®

2016
■ 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. $\frac{5}{13}$

2. 18 rectangles

3. 643

4. 64

5. -19

6. 0 units²

7. 16 green marbles

8. $18,750$ miles

9. 30 years

10. 23

11. 96 pounds

12. 11

13. $6\frac{3}{4}$ miles

14. 20 percent

15. 6 laps

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

17. 15

18. 13 units

Sprint Round

19. $\underline{721}$

20. $\underline{12\sqrt{2}}$ units²

21. $\underline{\frac{95}{144}}$

22. $\underline{576}$ orders

23. $\underline{9}$ moves

24. $\underline{\frac{76}{3}}$ units

25. $\underline{3\frac{1}{5}}$

26. $\underline{3}$

27. $\underline{119}$ points

28. $\underline{5}$

29. $\underline{1899}$ strings

30. $\underline{\frac{2\sqrt{21}}{7}}$ cm

Target Round

1. $\underline{-8064}$

3. $\underline{37.5 \text{ percent}}$

5. $\underline{4 \text{ in}^2}$

7. $\underline{108}$

2. $\frac{6\pi + 4 \text{ inches}}{\text{or } 4 + 6\pi}$

4. $\underline{\sqrt{133} \text{ units}}$

6. $\underline{\frac{73}{95}}$

8. $\underline{72\sqrt{2} \text{ units}^3}$

Team Round

1. 25.7 mi/h

2. 0.056

3. 54 percent

4. (2, 1, 2, 0, 0)

5. $\frac{5}{41}$

6. 4.4 times

7. 88

8. $\frac{48}{5}$ units²

9. 28 arrange-
ments

10. 7 bags

Countdown Round

1. $\underline{36 \text{ (factors)}}$

2. $\underline{170}$

3. $\underline{2\sqrt{5} \text{ (meters)}}$

4. $\underline{2}$

5. $\underline{5\frac{2}{7}}$

6. $\underline{10}$

7. $\underline{16}$

8. $\underline{0}$

9. $\underline{18 \text{ (factors)}}$

10. $\underline{\frac{7}{2}}$

11. $\underline{\frac{5}{5}}$

12. $\underline{36 \text{ (dollars)}}$

13. $\underline{3\sqrt{3} \text{ (units)}}$

14. $\underline{7772}$

15. $\underline{3}$

16. $\underline{81 \text{ (palindromes)}}$

17. $\underline{2 \text{ (mm)}}$

18. $\underline{5 \text{ (values)}}$

19. $\underline{18 \text{ (minutes)}}$

20. $\underline{\frac{169}{40}}$

21. $\underline{12}$

22. $\underline{196 \text{ (inches)}}$

23. $\underline{7 \text{ (days)}}$

24. $\underline{110 \text{ (miles)}}$

25. $\underline{30}$

26. $\underline{\frac{2}{9}}$

27. $\underline{7}$

28. $\underline{60 \text{ (dollars)}}$

29. $\underline{110}$

30. $\underline{1,000,008}$

31. $\underline{\frac{8}{39}}$

32. $\underline{\frac{16}{25}}$

33. $\underline{42 \text{ (minutes)}}$

34. $\underline{9}$

35. $\underline{25 \text{ (digits)}}$

36. $\underline{21.16}$

37. $\underline{96\pi \text{ (units}^2\text{)}}$

38. $\underline{\frac{7}{27}}$

39. $\underline{210}$

40. $\underline{\frac{64}{81}}$

Countdown Round

41. $\frac{8}{3}$ (inches) _____

42. 21 (units²) _____

43. -2 _____

44. 83 _____

45. 10,000 (cm) _____

46. $\frac{32}{3}$ _____

47. 60 (marbles) _____

48. 178 _____

49. 63 (seconds) _____

50. 18 (ft²) _____

51. $63\sqrt{3}$ (in²) _____

52. 217 _____

53. $\frac{2}{17}$ _____

54. $\frac{90}{90}$ _____

55. 9 _____

56. 18 _____

57. 3127 _____

58. $\frac{46}{1}$ _____

59. $\frac{8}{8}$ _____

60. 97 _____

61. 780 _____

62. 33 _____

63. 89 (students) _____

64. $50\sqrt{2}$ (units²) _____

65. 48 (sculptures) _____

66. $\frac{7}{15}$ _____

67. 16 (games) _____

68. 8 (units²) _____

69. 12 (times) _____

70. 7 _____

71. 50 _____

72. 40π (feet) _____

73. 501 _____

74. 14 _____

75. 11233 _____

76. 260,000 (passwords) _____

77. -3 _____

78. 10 (hours) _____

79. $\frac{2}{3}$ _____

80. $\frac{1}{7}$ _____

