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# MATHCOUNTS®

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2018  
■ State Competition ■  
Answer Key

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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. 10

2. 3 integers

3. 61

4. 20 units

5. 24

6. 5 baskets

7. 160 chips

8.  $\frac{1}{6}$

9. 3

10. 8

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

12. 8

13. 29

14.  $\frac{1}{8}$

15. 40 mi/h

## Sprint Round

16.  $\frac{38}{15}$

21.  $77$  points

26.  $3,998,000$

17.  $225$  points

22.  $2$

27.  $\frac{19}{54}$

23.  $\frac{9}{40}$

28.  $33.3$  percent

18.  $891$

29.  $11$

19.  $72$  ways

24.  $1$

25.  $\frac{1}{6}$

30.  $\frac{7}{19}$

20.  $9$

### Target Round

1.  $\frac{\$ 450}{\text{or } 450.00}$

3.  $\frac{80}{\text{bigons}}$

5.  $\frac{6.2}{\text{}}$

7.  $\frac{21}{\text{cm}}$

2.  $\frac{16}{\text{percent}}$

4.  $\frac{6\sqrt{29}}{5} \text{ cm}$

6.  $\frac{16}{\text{}}$

8.  $\frac{\text{Page } 265}{\text{}}$

## Team Round

1. 38.5

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

3. 2

4.  $\frac{22}{7}$  km

5. 5.54 percent

6. 9

7. 0.634 units

8.  $\frac{24}{253}$

9. 4580 m<sup>3</sup>

10. 2526

## Countdown Round

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

2.  $\frac{10 \text{ (integers)}}{1}$

3.  $\frac{0.153}{1}$

4.  $\frac{28}{1}$

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

6.  $\frac{1187 \text{ (mm)}}{1}$

7.  $\frac{6}{1}$

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

9.  $\frac{549.5}{1}$

10.  $\frac{6 \text{ (cases)}}{1}$

11.  $\frac{\frac{4}{5}}{1}$

12.  $\frac{4 \text{ (right triangles)}}{1}$

13.  $\frac{\frac{7}{307}}{1}$

14.  $\frac{4}{1}$

15.  $\frac{41 \text{ (dollars)}}{1}$

16.  $\frac{105 \text{ (ways)}}{1}$

17.  $\frac{25}{1}$

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

19.  $\frac{\frac{3360}{1}}{1}$

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

21.  $\frac{\frac{1}{4}}{1}$

22.  $\frac{\frac{5}{11}}{1}$

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

24.  $\frac{84}{1}$

25.  $\frac{6 \text{ (integers)}}{1}$

26.  $\frac{191 \text{ (cm)}}{1}$

27.  $\frac{65 \text{ (points)}}{1}$

28.  $\frac{32 \text{ (triangles)}}{1}$

29.  $\frac{48}{1}$

30.  $\frac{4030 \text{ (inches)}}{1}$

31.  $\frac{40}{1}$

32.  $\frac{\frac{2}{7}}{1}$

33.  $\frac{128}{1}$

34.  $\frac{24 \text{ (units)}}{1}$

35.  $\frac{35 \text{ (years)}}{1}$

36.  $\frac{6}{1}$

37.  $\frac{857}{1}$

38.  $\frac{-16}{1}$

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

40.  $\frac{40 \text{ (units)}}{1}$

## Countdown Round

41. 51

42. 3

43. 2.35

44. 100 (degrees)

45. 1

46. -9

47. -4

48. 10 (cm)

49. 2025

50. 622 (units<sup>2</sup>)

51. 27

52. 12

53. 58

54. 32 (ft<sup>2</sup>)

55. 7 (km/h)

56. 555

57. 15 (minutes)

58. 6 (diagonals)

59. -1

60. 500

61.  $17\sqrt{2}$

62. 9

63. 111

64. -1980

65. 100 (degrees)

66. 30

67. 15 (units<sup>2</sup>)

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

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

70. -12

71. 4 (ostriches)

72.  $\frac{3}{4}$

73.  $\frac{3}{20}$

74. 2 (ways)

75.  $\frac{\sqrt{3}}{2}$

76. 10

77.  $\frac{4\pi}{3}$  (in<sup>3</sup>)

78. 201

79. 140 (degrees)

80. 15