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# MATHCOUNTS®

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2011

■ 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. 45 bottles

2. 8 coins

3.  $6\pi$  sq in

4. 48 %

5. 5

6.  $\frac{3}{2}$  years

7. \$5 or \$5.00

8. 9

9. 30 mph

10. 36 parallelograms

11. 80 sq cm

12. 11 combinations

13. 92 points

14. 6 integers

15. -4

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

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

18. 275

## Sprint Round

19. 45 degrees

20.  $25\pi$  sq in

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

22. 20

23.  $\frac{19}{37}$

24. 5

25. 7

26.  $40\frac{1}{2}$

27.  $\frac{\sqrt{3}}{3}$

28. 11

29. 80 %

30. 529

**Target Round**

1. 123

3. 20 %

5. 22 sums

7. 0.36

2. \$240 or \$240.00

4. 1993

6. 82

8. 45

## Team Round

1. 534 widgets

2. 4 possibilities

3. 174 customers

4. 3630 feet

5. 240

6. 5 marbles

7. 110 cookies

8. 60 degrees

9.  $\frac{81}{1000}$

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

## Countdown Round

1. 146,410 (dollars)
2. 288
3. 36 (sq units)
4. 32 (sq units)
5. 234,000 (people)
6. 40
7. 17 (integers)
8. 29
9. 79 (integers)
10. 100,260
11. 15 (minutes)
12. 13 (units)
13. 75 (percent)
14. 125 (units)
15.  $\frac{1}{5}$
16. 5
17. 7 (hours)
18. 20 (units)
19. 1
20. 144 (sq units)

21. 4
22.  $\frac{4}{5}$
23. 36 (percent)
24.  $15\pi$  (sq units)
25. 37
26. 40 (units)
27. 12:30 (p.m.)
28.  $\frac{1}{8}$
29. 14
30. 289 (people)
31. 90 (seconds)
32. 8284
33. 4 (dollars)
34.  $\frac{\sqrt{2}}{2}$
35. 76 (sq units)
36.  $\frac{7}{8}$
37. 4
38. 148
39. 18 (fractions)
40. 3

## Countdown Round

41. 72 (degrees)

42. 48 (students)

43.  $4\sqrt{3}$  (units)

44. 26

45. 2

46. 15 (cans)

47.  $\frac{36}{49}$

48. 4

49. 200

50. 270 (integers)

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

52. 96 (percent)

53. 9

54. 64 (marbles)

55. 24 (sq units)

56. 528

57. 146

58. 230 (diagonals)

59. 17

60. 96 (students)

61. 75

62. 29

63. 168 (sq cm)

64. -4

65. 12

66. (10, 2)

67. 6000 (dollars)

68. 10

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

70. 5 (ways)

71. 64

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

73. 47 (degrees)

74. 69 (percent)

75. 7 (inches)

76. 150 (bags)

77. 81

78. 23

79.  $\frac{1}{64}$

80. 9