For all following questions, M is on the side AB, and N is on the side AC of △ABC. MN is parallel to BC. MC and NB intersect at point P. Note: In this set of problems, brackets are used to represent the areas. For example, [△ ABC] means the area of △ ABC.

1. MN = 12, BC = 20, MP = 12, What is the length of CP and MC?

2. MP = 42, MC = 91, MN = 42, What is the length of BC?

3. AB = 81, MB = 45, MP = 36, What is the length of CP and MC?

4. CP = 14, MC = 24, MB = 4, What is the length of AM and AB?

5. AM = 12, MB = 12, [$\triangle$ PNC] = 54, What is the area of all the other triangles?

6. [$\triangle$ ABC] = 1900, [$\triangle$ ABN] = 1710, What is the area of all the other triangles?

7. [$\triangle$ PMN] = 147, [$\triangle$ PBC] = 300, What is the area of all the other triangles?

8. BP = 45, NB = 72, AM = 27, What is the length of AB and MB?

9. AM = 40, MB = 10, CP = 50, What is the length of MP and MC?

10. BP = 54, NB = 66, AM = 12, What is the length of AB and MB?

11. AN = 64, NC = 8, [$\triangle$ PNC] = 72, What is the area of all the other triangles?

12. AN = 3, AC = 18, BC = 18, What is the length of MN?

13. MP = 81, CP = 90, AB = 90, What is the length of AM and MB?

14. MN = 35, BC = 49, [$\triangle$ MNC] = 120, What is the area of all the other triangles?

15. BP = 7, NB = 12, AC = 7, What is the length of AN and NC?

16. AC = 45, NC = 9, NP = 36, What is the length of BP and NB?

17. BP = 14, NB = 24, AN = 10, What is the length of AC and NC?

18. AM = 30, MB = 10, NB = 70, What is the length of NP and BP?

19. [$\triangle$ PMN] = 9, [$\triangle$ PMB] = 12, What is the area of all the other triangles?

20. AN = 16, NC = 40, AM = 16, What is the length of AB and MB?

21. MP = 20, CP = 45, BC = 45, What is the length of MN?

22. MN = 8, BC = 20, AC = 20, What is the length of AN and NC?

23. AN = 18, AC = 36, BP = 36, What is the length of NP and NB?

24. [$\triangle$ AMN] = 300, [$\triangle$ ABN] = 420, What is the area of all the other triangles?

25. AN = 28, NC = 7, AB = 35, What is the length of AM and MB?

26. MN = 6, BC = 12, [$\triangle$ MBC] = 6, What is the area of all the other triangles?

27. MN = 4, BC = 8, MP = 4, What is the length of CP and MC?

28. NP = 20, BP = 30, AB = 30, What is the length of AM and MB?

29. AB = 72, MB = 8, CP = 72, What is the length of MP and MC?

30. MN = 4, BC = 16, CP = 16, What is the length of MP and MC?

31. MP = 3, MC = 7, AN = 3, What is the length of AC and NC?

32. AB = 8, MB = 4, CP = 8, What is the length of MP and MC?

33. MP = 2, MC = 8, AC = 6, What is the length of AN and NC?

34. BP = 54, NB = 102, MP = 48, What is the length of CP and MC?

35. NP = 21, BP = 70, CP = 70, What is the length of MP and MC?

36. [$\triangle$ AMN] = 9, [$\triangle$ ABN] = 72, What is the area of all the other triangles?

37. MP = 16, MC = 36, AN = 16, What is the length of AC and NC?

38. [$\triangle$ PBC] = 4, [$\triangle$ MBC] = 6, What is the area of all the other triangles?

39. MP = 8, MC = 24, AM = 8, What is the length of AB and MB?

40. MN = 10, BC = 25, MP = 10, What is the length of CP and MC?

41. MP = 4, MC = 16, NB = 16, What is the length of NP and BP?

42. BP = 20, NB = 36, [$\triangle$ MNB] = 288, What is the area of all the other triangles?

43. AN = 2, AC = 7, AM = 2, What is the length of AB and MB?

44. MP = 24, MC = 80, BC = 56, What is the length of MN?

45. MN = 56, BC = 72, [$\triangle$ MNC] = 224 What is the area of all the other triangles?

46. [$\triangle$ ABC] = 12, [$\triangle$ ABN] = 6, What is the area of all the other triangles?

47. AN = 20, AC = 28, BP = 28, What is the length of NP and NB?

48. CP = 18, MC = 27, [$\triangle$ PNC] = 54, What is the area of all the other triangles?

49. AC = 90, NC = 18, NP = 72, What is the length of BP and NB?

50. MN = 42, BC = 63, AN = 42, What is the length of AC and NC?

51. NP = 8, BP = 32, AC = 32, What is the length of AN and NC?

52. AN = 21, NC = 14, [$\triangle$ ABN] = 120, What is the area of all the other triangles?

53. NP = 3, BP = 10, AN = 3, What is the length of AC and NC?

54. AB = 21, MB = 18, NC = 18, What is the length of AN and AC?

55. AN = 54, NC = 36, [$\triangle$ MNC] = 384, What is the area of all the other triangles?

56. NP = 8, BP = 12, AC = 12, What is the length of AN and NC?

57. MN = 14, BC = 49, NP = 14, What is the length of BP and NB?

58. AC = 45, NC = 9, MP = 36, What is the length of CP and MC?

59. MP = 6, CP = 60, MN = 6, What is the length of BC?

60. [$\triangle$ PMN] = 8, [$\triangle$ PBC] = 32, What is the area of all the other triangles?

61. AN = 16, AC = 56, [$\triangle$ MBC] = 315, What is the area of all the other triangles?

62. AC = 30, NC = 6, CP = 30, What is the length of MP and MC?

63. AM = 21, MB = 21, CP = 42, What is the length of MP and MC?

64. BP = 18, NB = 24, MN = 6, What is the length of BC?

65. NP = 4, BP = 24, NC = 20, What is the length of AN and AC?

66. MN = 28, BC = 35, [$\triangle$ PMB] = 20, What is the area of all the other triangles?

67. CP = 40, MC = 64, BC = 40, What is the length of MN?

68. MN = 18, BC = 36, CP = 36, What is the length of MP and MC?

69. CP = 24, MC = 33, BP = 24, What is the length of NP and NB?

70. NP = 20, NB = 50, [$\triangle$ MNB] = 10, What is the area of all the other triangles?

71. MN = 6, BC = 10, MP = 6, What is the length of CP and MC?

72. MP = 9, CP = 21, [$\triangle$ AMN] = 90, What is the area of all the other triangles?

73. MP = 3, MC = 15, AN = 3, What is the length of AC and NC?

74. [$\triangle$ PMN] = 8, [$\triangle$ PNC] = 16, What is the area of all the other triangles?

75. NP = 3, BP = 6, AB = 6, What is the length of AM and MB?

76. [$\triangle$ AMN] = 7, [$\triangle$ ABN] = 42, What is the area of all the other triangles?

77. AC = 6, NC = 3, MN = 3, What is the length of BC?

78. NP = 40, NB = 88, [$\triangle$ AMN] = 275, What is the area of all the other triangles?

79. [$\triangle$ PBC] = 320, [$\triangle$ MBC] = 440, What is the area of all the other triangles?

80. [$\triangle$ PMN] = 48, [$\triangle$ PBC] = 147, What is the area of all the other triangles?

81. [$\triangle$ PMN] = 1, [$\triangle$ PNC] = 2, What is the area of all the other triangles?

82. AB = 10, MB = 5, [$\triangle$ PNC] = 2, What is the area of all the other triangles?

83. BP = 12, NB = 18, MC = 18, What is the length of MP and CP?

84. [$\triangle$ PMN] = 100, [$\triangle$ PNC] = 180, What is the area of all the other triangles?

85. NP = 18, NB = 45, [$\triangle$ AMN] = 540, What is the area of all the other triangles?

86. NP = 30, BP = 42, NC = 12, What is the length of AN and AC?

87. [$\triangle$ ABC] = 576, [$\triangle$ ABN] = 72, What is the area of all the other triangles?

88. AN = 9, NC = 6, NP = 9, What is the length of BP and NB?

89. AM = 45, AB = 63, BC = 63, What is the length of MN?

90. MP = 9, MC = 36, MB = 18, What is the length of AM and AB?

91. AM = 4, AB = 12, CP = 12, What is the length of MP and MC?

92. MP = 6, CP = 10, MN = 6, What is the length of BC?

93. AB = 56, MB = 40, [$\triangle$ ABC] = 441, What is the area of all the other triangles?

94. CP = 90, MC = 171, AB = 90, What is the length of AM and MB?

95. [$\triangle$ PMN] = 49, [$\triangle$ PMB] = 56, What is the area of all the other triangles?

96. AN = 16, NC = 40, NP = 16, What is the length of BP and NB?

97. NP = 28, NB = 68, AB = 40, What is the length of AM and MB?

98. MN = 28, BC = 70, AM = 28, What is the length of AB and MB?

99. MN = 8, BC = 72, [$\triangle$ ABN] = 90, What is the area of all the other triangles?

100. AN = 16, NC = 40, [$\triangle$ MNB] = 90, What is the area of all the other triangles?