

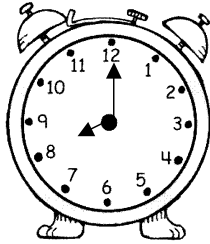
Answer Key

- | | |
|--------------|--|
| 1. 17.7 | 43. A=9, B=5 |
| 2. 18 | 44. A=3, B=6 |
| 3. 10.7 | 45. 95 |
| 4. 15.5 | 46. 91 |
| 5. 13.3 | 47. A=6, B=5 |
| 6. 12.18 | 48. A=1, B=5 |
| 7. 13.02 | 49. A=9, B=8 |
| 8. 8.04 | 50. A=3, B=8 |
| 9. 12.3 | 51. 7 |
| 10. 7.76 | 52. 5 |
| 11. 27 | 53. 3 |
| 12. 17 | 54. 9 |
| 13. 16 | 55. 2 |
| 14. 16 | 56. 9 |
| 15. 9 | 57. 8 |
| 16. 29 | 58. 6 |
| 17. 9 | 59. 16 |
| 18. 11 | 60. 19 |
| 19. 19 | 61. 133 |
| 20. 32 | 62. 47 |
| 21. 60 | 63. 78 |
| 22. 50 | 64. 106 |
| 23. 5 | 65. 58 |
| 24. 30 | 66. 112 |
| 25. 15 | 67. 30 |
| 26. 60 | 68. 60 |
| 27. 5 | 69. 27 |
| 28. 30 | 70. 173 |
| 29. 10 | 71. $90 \times 8 = 720$ |
| 30. 20 | 72. 69 degrees Fahrenheit |
| 31. N/A | 73. $30 \times 5 = 150$ |
| 32. N/A | 74. $31 - 12 = 19$ |
| 33. N/A | 75. $36 \div 6 = 6$ |
| 34. N/A | 76. C |
| 35. N/A | 77. $5 \times 20 = 100$ |
| 36. N/A | 78. $9 \times 2 = 18$ |
| 37. N/A | 79. $12 + 19 = 31$ |
| 38. N/A | 80. $90 - 35 = \$55$ |
| 39. N/A | 81. $5 \times 10 = 50$ |
| 40. N/A | 82. $2 \times 25 + 30 = 80$
$80 - 75 = \boxed{5 \text{ cts}}$ |
| 41. A=8, B=1 | 83. 9 weeks |
| 42. A=1, B=3 | |

MAP 230 (T3) Issue 2

84. $10 - 2.25 - 1.50 = 6.25$
85. B
86. $3 \times 7 = 21$
87. $12 \div 2 = \boxed{6 \text{ cups}}$
88. $4 \times 8 = 32$
89. $32 - 13 = 19$
 $19 - 13 = \boxed{6}$
90. $30 \div 2 = 15$
91. $3 \times 6 = 18$
92. $42 \div 7 = 6$
93. $82 - 66 = 16$
94. $140 - 95 = 45$ (yd)
95. 1 quarter & 1 dime & 1 penny
96. B
97. 3,179 more points
98. $8:45 - 0:30 = 8:15$ AM
99. $12 \times 8 = 96 \text{ ft}^2$
100. $4.8 \div 4 = \$1.20$
101. $42 \div 7 = 6$
102. Melody = \$20
Nelson = \$10
Orion = \$13
103. $28 - 18 = 10$
104. $25 - 19 = 6\text{¢}$
105. $24 \div 3 = 8$
 $24 - 8 = \boxed{16 \text{ yd}}$
106. $4 \times 2.5 = \boxed{10 \text{ miles}}$
107. $2 + 1.5 + 0.5 + 2$
 $= \boxed{\$6}$
108. $2 + 2 = 4$
 $10 - 4 = 6$
 $6 \times 2 = \boxed{12}$
109. $10 \times 2 \times 2 \times 2 \times 2 = 160$
110. $10 + 20 + 40 + 80 + 160$
 $= \boxed{310}$

Answer Key

- | | |
|--------------|--|
| 1. 15.6 | 43. A=5, B=1 |
| 2. 13.8 | 44. 61 |
| 3. 11.6 | 45. A=5, B=2 |
| 4. 11.6 | 46. A=5, B=4 |
| 5. 12.5 | 47. A=2, B=9 |
| 6. 14.37 | 48. 51 |
| 7. 13.31 | 49. 83 |
| 8. 5.03 | 50. A=1, B=3 |
| 9. 10.87 | 51. 7 |
| 10. 1.35 | 52. 4 |
| 11. 9 | 53. 5 |
| 12. 33 | 54. 3 |
| 13. 31 | 55. 4 |
| 14. 6 | 56. 2 |
| 15. 24 | 57. 9 |
| 16. 12 | 58. 8 |
| 17. 17 | 59. 2 |
| 18. 24 | 60. 8 |
| 19. 23 | 61. 33 |
| 20. 17 | 62. 22 |
| 21. 22 | 63. 111 |
| 22. 33 | 64. 185 |
| 23. 50 | 65. 58 |
| 24. 33 | 66. 71 |
| 25. 300 | 67. 150 |
| 26. 60 | 68. 196 |
| 27. 32 | 69. 24 |
| 28. 7 | 70. 40 |
| 29. 10 | 71. $14 + 16 = 30$
$30 \div 5 = \boxed{6 \text{ rows}}$ |
| 30. 100 | 72. A |
| 31. N/A | $3 - 2 = 1^{\text{st}}$ |
| 32. N/A | 73. 8:00 |
| 33. N/A |  |
| 34. N/A | |
| 35. N/A | |
| 36. N/A | |
| 37. N/A | |
| 38. N/A | |
| 39. N/A | |
| 40. N/A | |
| 41. A=9, B=5 | 74. $28 \div 7 = 4$ |
| 42. A=2, B=4 | 75. $8 \times 3 = 24$ |

MAP 230 (T3) Issue 1

76. $5200 + 2900 = 8100$

77. $5 \times 2 = 10$

78. $20 - 13 = 7$

79. $48 \div 8 = 6$ (in)

80. $2 \times 12 = 24$

81. $13 + 11 + 9 + 20 + 7$
 $= (13 + 7) + (11 + 9) + 20$
 $= 3 \times 20$
 $= \boxed{60}$

82. 140 min

83. $12 \times 4 = 48$

84. $8 \times 2 = \$16$

85. $11 + 1 = 12$
 $12 \div 3 = \boxed{4}$ tables

86. $124 + 16 = 140$ (sec)

87. $17 \div 2 = 8$ ft 6 in

88. $8 \times 6 = \boxed{48c}$

89. 4 minutes

90. The number of empty nests could be
4, 8, 12, ..., 40, 44
Ans = $\boxed{44}$

91. $66 - 45 = 21$

92. $8 \times 5 = 40$

93. $4 \times 10 + 6 = 46$

94. $4 \times 60 = 240$

95. $43 - 15 = 28$

96. $24 \div 8 = 3$

97. $3 \times 20 = \boxed{60}$ miles

98. $25 - 17 = 8$ (in)

99. $6:30 - 0:20 = 6:10$

100. $2.00 - 1.45 = \boxed{\$0.55}$

101. 200

102. $3 \times 5 = 15$

103. $3 \times 20 = 60$

104. 4

105. bottom: 60

middle: 30

top: 20

$60 + 30 + 20 = \boxed{110}$ inches

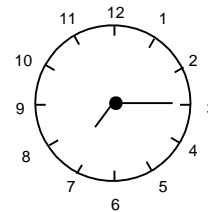
106. $10 + 2 + 3 = 15$

107. $2 + 5 \times (5 - 1) = 22$

108. $30 \div 6 = 5$

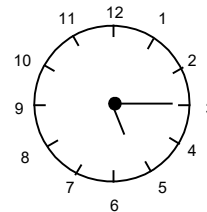
109. $3 \times 6 + 14 = 18 + 14 = 32$

110. The time is $6:30 + 0:45 = 7:15$



Answer Key

- | | |
|--------------|---|
| 1. 8.5 | 43. N/A |
| 2. 14.8 | 44. N/A |
| 3. 12.7 | 45. N/A |
| 4. 15.9 | 46. N/A |
| 5. 10.3 | 47. N/A |
| 6. 9.5 | 48. N/A |
| 7. 11.95 | 49. N/A |
| 8. 15.63 | 50. N/A |
| 9. 11.13 | 51. 7 |
| 10. 6.64 | 52. 5 |
| 11. 16 | 53. 5 |
| 12. 17 | 54. 3 |
| 13. 12 | 55. 4 |
| 14. 17 | 56. 9 |
| 15. 28 | 57. 9 |
| 16. 12 | 58. 8 |
| 17. 13 | 59. 6 |
| 18. 17 | 60. 9 |
| 19. 8 | 61. $5 + 7 + 9 = 21$ |
| 20. 13 | Ans = 9 years old |
| 21. 11 | 62. $7 \times 90 = 630$ |
| 22. 180 | 63. $42 \div 7 = 6$ |
| 23. 6 | 64. $4 \times 90 = 360$ |
| 24. 13 | 65. $60 - 47 = 13$ |
| 25. 130 | 66. $6 + 7 + 11 = 24$ |
| 26. 4 | 67. $2 \times 4 + 4 \times 6$
$= 8 + 24$
$= 32$ (ft) |
| 27. 6 | 68. $51 - 24 = 27$ |
| 28. 9 | 69. Kara ran $500 + 800 + 1000 = 2300$
Ann ran $5000 - 2300 = 2700$ farther than Kara. |
| 29. 360 | 70. $3 \times 4 - 5 = 7$ |
| 30. 21 | 71. $4:15 + 1:00 = 5:15$ |
| 31. A=2, B=4 | |
| 32. A=4, B=6 | |
| 33. 55 | |
| 34. A=6, B=6 | |
| 35. 59 | |
| 36. A=4, B=0 | |
| 37. A=6, B=1 | |
| 38. A=4, B=9 | |
| 39. 61 | |
| 40. A=7, B=8 | |
| 41. N/A | |
| 42. N/A | |
| | 72. $2 \times 5 + 3 \times 10 = 40\text{¢}$ |
| | 73. $10 \times 8 = 80$ |
| | 74. $3 \times 6 = 18$ |



MAP 230 (T3) Issue 3

- 75. $56 \div 7 = 8$
- 76. $3 + 5 \times (5 - 1) = 23$
- 77. $10 - 2.3 \times 3 = 10 - 6.9 = \3.10
- 78. $6 \div \frac{1}{2} = 12$
- 79. $9:20 - 1:50 = 7:30 \text{ AM}$
- 80. $9:20 + 1:50 = 11:10 \text{ AM}$
- 81. $60 \div 3 = 20 \text{ miles per gal}$
- 82. $10 \times 20 = 200 \text{ miles.}$
- 83. $10 \times 2 = \$20$
- 84. $240 \div 20 = 12 \text{ gallons}$
 $2 \times 12 = \boxed{\$24}$
- 85. $3 \times 90 = 270$
- 86. $30 \times 6 = 180$
- 87. $(20+15) \times 2 = 70 \text{ yd}$
 $3 \times 70 = \boxed{210 \text{ yd}}$
- 88. $17 + 29 = 46$

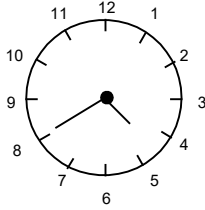
- 89. $17 - 9 = 8$
- 90. 7 inches
- 91. $37 + 24 = 61$
- 92. J: $12 \div 3 \times 4 = \$16$
M: $12 \div 2 \times 3 = \$18.00$
- 93. N
 $45 + 25 = 70$
- 94. $35 - 19 = 16$
- 95. $2 \times 70 = 140$
- 96. $2 \times 4 = 8$
- 97. $120 + 80 + 120 = 320$
- 98. $10 + 7 + 5 = 22$
- 99. $1.25 + 1.75 = 3$
 $2 \times 3 = 6$
- 100. $19 + 26 + 28 = 73$

Answer Key

- | | |
|----------|---|
| 1. 10.6 | 43. N/A |
| 2. 14 | 44. N/A |
| 3. 12.6 | 45. N/A |
| 4. 16.5 | 46. N/A |
| 5. 17 | 47. N/A |
| 6. 9.2 | 48. N/A |
| 7. 9.76 | 49. N/A |
| 8. 14.64 | 50. N/A |
| 9. 8.05 | 51. 7 |
| 10. 4.75 | 52. 5 |
| 11. 13 | 53. 5 |
| 12. 3 | 54. 3 |
| 13. 15 | 55. 9 |
| 14. 21 | 56. 3 |
| 15. 28 | 57. 9 |
| 16. 7 | 58. 8 |
| 17. 16 | 59. 6 |
| 18. 18 | 60. 9 |
| 19. 6 | 61. 144 |
| 20. 15 | 62. 102 |
| 21. 4 | 63. 102 |
| 22. 5 | 64. 60 |
| 23. 8 | 65. 87 |
| 24. 8 | 66. 56 |
| 25. 7 | 67. 135 |
| 26. 12 | 68. 164 |
| 27. 32 | 69. 97 |
| 28. 21 | 70. 60 |
| 29. 33 | 71. $51 - 28 = 23$ |
| 30. 50 | 72. $50 - 45 = 5$ cts |
| 31. 6 | 73. $6 \times 3 \times 4 = 72$
$\$80 - \$72 = \$8$ |
| 32. 40 | 74. pencil: 5¢
eraser: 7¢
sharpener: 10¢
$5 + 7 + 10 = 22$ ¢ |
| 33. 2 | 75. $6 + 6 + 6 = 18$ |
| 34. 80 | |
| 35. 10 | |
| 36. 30 | |
| 37. 6 | |
| 38. 40 | |
| 39. 6 | |
| 40. 13 | |
| 41. N/A | |
| 42. N/A | |

MAP 230 (T3) Issue 4

76. $3:30 + 1:10 = 4:40$



77. $15 \div 3 = 5$ days

78. 3 times

79. $292 - 208 = 84$ (yd)

80. $38 - 15 = 23$

81. $100 \div 20 = 5$ gal

82. 16 yards

83. $5 \times 10 = 50$

84. 10 and 20

85. $3 + 11 = 14$

86. T

Dan will be 4 and Eric will be 12, $12 \div 4 = 3$.

87. $60 - 25 - 25 = 10$

88. 61

89. $60 + 64 = 124$

90. $82 + 86 = 168$

91. $16 \div 2 = 8$

92. $24 + 61 = 85$

93. \$2.40

94. $5 \times 24 = 120$

$2 \times 30 = 60$

$120 + 60 = 180$

95. $3 \times 20 = 60$

96. $8 + 5 + 2 = 15$

97. $4 \times 80 = 320$

98. $50 \times 5 = 250$

99. $2 + 3 = 5$ o'clock

100. $2 \times 3 = 6$ inches

101. $120 \div 4 = 30$

102. $82 - 18 = 64$

103. $4 \times 100 = 400$

104. $8 \times 40 = 320$

105. 5 dimes = 2 quarters, 20 dimes = 8 quarters

106. $2 \times 5 = 10$

$3 \times 2 = 6$

$25 - 16 = 9$ ¢

107. $3 \times 17 = 51$

$100 - 51 = 49$ ¢

108. $18 - 9 = 9$

109. $16 \div 2 = 8$

110. $12 + 18 = 30$

Answer Key

- | | |
|----------|----------------------------------|
| 1. 14.5 | 43. 13 |
| 2. 15.5 | 44. 31 |
| 3. 13.7 | 45. 26 |
| 4. 13.5 | 46. 8 |
| 5. 11.1 | 47. 18 |
| 6. 15.66 | 48. 16 |
| 7. 2.6 | 49. 29 |
| 8. 3.12 | 50. 7 |
| 9. 8.55 | 51. 7 |
| 10. 6.04 | 52. 5 |
| 11. 16 | 53. 5 |
| 12. 19 | 54. 3 |
| 13. 5 | 55. 4 |
| 14. 10 | 56. 12 |
| 15. 16 | 57. 9 |
| 16. 11 | 58. 8 |
| 17. 7 | 59. 6 |
| 18. 24 | 60. 9 |
| 19. 20 | 61. 55 |
| 20. 16 | 62. 88 |
| 21. 4 | 63. 130 |
| 22. 20 | 64. 119 |
| 23. 140 | 65. 64 |
| 24. 40 | 66. 75 |
| 25. 280 | 67. 26 |
| 26. 40 | 68. 133 |
| 27. 4 | 69. 45 |
| 28. 20 | 70. 97 |
| 29. 140 | 71. $96 \div 2 = 48$ |
| 30. 11 | 72. $24 \div 4 = 6$ |
| 31. N/A | 73. $8 \times 3 = 24$ |
| 32. N/A | 74. $24 + 24 = 48$ |
| 33. N/A | 75. $3 \times 120 = 360$ |
| 34. N/A | 76. $21 \div 3 = 7$ |
| 35. N/A | 77. $13 + 9 + 13 = 35$ |
| 36. N/A | 78. $12 \div 2 = 6$ (lb) |
| 37. N/A | 79. $135 - 57 = 78$ |
| 38. N/A | 80. $10 \div 5 = 2$ |
| 39. N/A | 81. 70 ounces of seed |
| 40. N/A | 82. $50 \times 6 = 300 = \$3.00$ |
| 41. 3 | 83. $8 + 8 + 9 = 25$ |
| 42. 16 | 84. $1 + 2 + 3 + 4 + 5 = 15$ |

MAP 230 (T3) Issue 5

85. $15 \div 5 = 3$

86. $13 + 17 = 30$

$3 \times 30 = \boxed{\$90}$

87. $463 + 46 = 509$

88. $5 \times 7 = 35$ square yards

89. $46 - 28 = 18$

$18 + 4 = 22$

90. $2 + 3:30 = 5:30$



91. $12 \div 3 = \$4.00$

92. $20 - 13 = 7$

93. $10 \times 5 \times 12 = 600$

94. $4 \times 40 = 160$

95. $8 + 7 + 6 = 21$

96. $36 + 85 = 121$

97. $37 + 13 + 62 = 112$

98. $5 \times 70 = 350$

99. (a) 7

(b) 14

100. 60 (Jerald) & 80 (Kerry) & 75 (Larry)

101. $33 - 20 = 13$

102. $3 \times 4 = 12$

103. $23 - 5 = 18$

$23 + 18 = \boxed{41}$

104. $6 - 3 + 10 - 2 + 4$

$= 15$

105. $20 + 10 + 10 + 5 + 5 + 10 + 5 + 5 = 70$ (yd)

106. $22 + 19 = 41$

107. $85 - 67 = 18$

108. C

109. A

110. 20