

Answer Key

- | | |
|------------------------------------|--|
| 1. 8464 | 43. 50 |
| 2. 8649 | 44. 2 |
| 3. 8836 | 45. 3 |
| 4. 9025 | 46. 5 |
| 5. 9216 | 47. 10 |
| 6. 9604 | 48. 11 |
| 7. 9409 | 49. $\frac{1}{20}$ |
| 8. 9801 | 50. $\frac{1}{30}$ |
| 9. 10000 | 51. Uno = 7, Tom = 10, Sam = <u>20 (yrs old Sam)</u> |
| 10. 10201 | 52. $8 + 8 + 8 = 24$ |
| 11. -13 | 53. $21 - 7 - 3 = 11$ yrs old |
| 12. -9 | 54. Kirk = $10 - 4 = 6$ (4 years ago) |
| 13. -9 | Jake = 12 (4 years ago) |
| 14. -17 | Jake = <u>16 (now)</u> |
| 15. -15 | 55. (a) $\frac{11-3}{2} = 4$ (Brandon) |
| 16. -1 | (b) $\frac{11+3}{2} = 7$ (Andy) |
| 17. -1 | 56. $12 \times 2 = 24$ |
| 18. -3 | $24 \times \frac{2}{3} = \underline{16}$ (yrs old Tom) |
| 19. 0 | 57. $12 \times 3 + 7 = 43$ |
| 20. 3 | 58. Pamela will be 30 years old and Queen will be 10. |
| 21. -8 | (a) $30 - 3 = 27$ years old, Pamela |
| 22. -14 | (b) $10 - 3 = 7$ yrs old, Queen |
| 23. 13 | 59. Eden: $18 - 3 = 15$ (present) |
| 24. -15 | $15 - 5 = 10$ (5 years ago) |
| 25. 7 | David: |
| 26. 6 | $10 \times 2 = 20$ (5 years ago) |
| 27. -1 | $20 + 5 = 25$ (present) |
| 28. 1 | $25 + 3 = 28$ (yrs old in 3 years, David) |
| 29. -4 | 60. $24 - 6 = 18$ |
| 30. -6 | $18 \div 2 = 9$ |
| 31. $4\frac{1}{2} = 4.5 = 450\%$ | $9 - 3 = 6$ years old (for both) |
| 32. $7\frac{1}{5} = 7.2 = 720\%$ | 61. $\frac{3}{4} \times 144 = 108$ |
| 33. $1\frac{1}{4} = 1.25 = 125\%$ | 62. $\frac{24}{25}$ |
| 34. $2\frac{4}{5} = 2.8 = 280\%$ | 63. $\frac{8}{3} \times \frac{15}{4} = 10$ |
| 35. $0.36 = 36\%$ | 64. .49 |
| 36. $\frac{3}{4} = 0.75 = 75\%$ | 65. 1.44 |
| 37. $\frac{1}{8} = 0.125 = 12.5\%$ | 66. $1\frac{3}{7}$ |
| 38. $0.0035 = 0.35\%$ | 67. 2 |
| 39. $5.5 = 550\%$ | 68. 0.2 |
| 40. 6% | 69. $5(x + 3) = 30$ |
| 41. 30 | $x + 3 = 6$ |
| 42. 40 | $x = 3$ |
| | 70. 4 |
| | 71. $\frac{1}{4} = 1/4$ |

MAP 260 (T1) Issue 12

72. $7 + 2 = 9$
 $9 + 6 = 15$
 $15 + 2 = 17$
 $17 + 6 = 23$
 $23 + 2 = 25$
73. $5 - 3\frac{4}{5} = 1\frac{1}{5} = 1\frac{1}{5}$
74. $9^4 \times 3^3 = 3^{11}$
 $\square = 11$
75. 90°
76. C
77. I(3, -4.5)
78. 12
79. 30 ft
80. $2 \times (1.5 + 2.7) = 8.4$
81. $4^6 = (4 \times 4)^3 = 16^3$
 Ans = 3
82. $\frac{4}{3} = 4/3$
83. $0.5x + 1 = 0.2x + 10$
 $0.3x = 9$
 $x = 30$
84. $17 \div 25 = 0.68 = 68\%$
85. $4 \text{ lb } 6 \text{ oz} = 4\frac{6}{16} = 4\frac{3}{8} \text{ lb}$
 $0.4 \times 4\frac{3}{8} = \1.75
86. $60 \div 2 = 30$
 $60 - 20 = 10$ (width)
 old area = $20 \times 10 = 200$
 Since each has the same increase,
 $40 \div 4 = 10$.
 new length = $20 + 10 = 30$
 new width = $10 + 10 = 20$
 new area = $30 \times 20 = 600$
 the increase of area is $600 - 200 = 400 \text{ in}^2$
87. $485 + 55 = 540$
 $540 \div 9 = \$60.00$
88. $120 \times 4 = \$480$ (regular)
 $2,400 - 480 = \$1,920$ (balcony)
 $1920 \div 8 = 240$ (balcony seats)
89. $3\frac{1}{2} \times 5 = 17.5$
 $20 - 17.5 = 2\frac{1}{2} = 2\frac{1}{2} \text{ in}$
90. $\frac{1}{2}(20^2 - 10^2)\pi$
 $= \frac{1}{2} \times 300\pi$
 $= 300 \times 1.57$
 $= 471 \text{ cm}^2$
91. $(x - \frac{1}{2})^2 = 16$
 $x - \frac{1}{2} = \pm 4$
 $x = \frac{1}{2} \pm 4 = 4\frac{1}{2} \text{ or } -3\frac{1}{2}$
 Ans = -3.5 & 4.5 (in increasing order)
92. A
93. $60 / (\frac{1}{2} + \frac{3}{4}) = 48 \text{ mph}$
94. $12 + 18 = 30$
 $25\% + 15\% = 40\%$
 $40\% \times 30 = 12$
 $12 - 3 = 9$ more hits
95. $5 \text{ ft } 4 \text{ in} = 5\frac{1}{3} \text{ ft}$
 $5\frac{1}{3} : 6 = 16:18 = 8:9$
96. $4 \times 100 + 7 \times 20 = \540