MAP 260 (T1) Issue 4

Answer Key

1. -5
2. 3
3. 3
4. -2
5. 8
6. 7
7. 9
8. 7
9. 8
10. 49
11. $\frac{1}{2}(7 + 9) = 8$
12. $\frac{1}{2}(9 + 13) = 11$
13. $10 \times 3 = 30$
14. $\frac{1}{2}(80 + 90) = 85$
15. (a) $\frac{55+5}{2} = \$30$ (Alex)
    (b) $\frac{55-5}{2} = \$25$ (Brian)
16. $\frac{1}{2}(62 + 78) = 70$
17. $125 \times 4 = 500$ people
18. $18 \div 2 = 9$
19. $\frac{65-25}{2} = \$20$
20. $50 \div 2 = 25$ (average)
    $10 \div 2 = 5$
    (a) $25 + 5 = \underline{30 \text{ (larger)}}$
    (b) $25 - 5 = \underline{20 \text{ (smaller)}}$

21. $14{,}000 \div 7 - 1800 = 200$ calories
22. $184 \div 8 = 23$ miles per gallon
23. $7 \times 300{,}000{,}000 = 2.1$ billion trees
24. $85 - 25 = 60$
    $60 \div 2 = \$30$
25. $68 \times 3 = 204$
    $204 - 56 - 78 = \underline{70}$
26. 109 yards
27. $143\frac{3}{4} = 143 \ 3/4$ yards
28. 5&7&9 (in increasing order)

29. $3 \times 50 - 2 \times 60 = 150 - 120$
    $= 30$ lbs
30. 13& 15& 17 (in increasing order)
31. 0.16
32. $1\frac{1}{2} + 2\frac{1}{3} = 3 + (\frac{1}{2} + \frac{1}{3}) = 3\frac{5}{6} = 3 \ 5/6$
33. $6\frac{5}{6} = 6 \ 5/6$
34. 123 & 4 (R)
35. 225
36. 450 (min)
37. 12
38. $\frac{13}{15} = 13/15$
39. $30 \times 8 = 240$
    $240 - 210 = \$30$
40. C
    $36 = 6 \times 6 = 4 \times 9 = 3 \times 12 = 2 \times 18 = 1 \times 36$
    (6, 6) is not good as they must be different.
    (4, 9) is the only answer.
    Their difference is $9 - 4 = 5$.
41. $Speed_{avg} = \frac{D_{tot}}{T_{tot}} = \frac{365+245}{6+4} = \boxed{61 \text{ mph}}$
42. A
    $\frac{10}{5} = 2$
    $2^2 = 4$ times
43. 50
44. { 25, 50, 100 }
45. Let
    x = # daughters
    $3x + 1$ = # sons
    Each daughter has $x - 1$ sisters.
    $3x + 1 = 5(x - 1)$
    $2x = 6$
    $x = 3$ (daughters)
    $3x + 1 = 10$ (sons)
    $10 + 3 = \boxed{13 \text{ (children)}}$
46. 8 lb 12 oz + 8 oz = $\boxed{9 \text{ lb \& 4 oz}}$
47. 14
48. $28 \div 14 = 2$
    $98 \div 14 = 7$
    $196 \div 14 = 14$
    $2 + 7 + 14 = 23$
49. $48 \div 6 = 8$
    $2(6 + 8) = \boxed{28 \text{ in}}$
50. $800 \times 15\% \times 2 = \boxed{240}$
51. $\frac{3}{4} \times 144 = 108$
52. $\frac{24}{25}$

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53. $\frac{8}{3} \times \frac{15}{4} = 10$

54. .49

55. 1.44

56. 1 3/7

57. 2

58. 0.2

59. $5(x + 3) = 30$
    $x + 3 = 6$
    $x = 3$

60. 4

61. $\frac{1}{4} = 1/4$

62. 7 + **2**=9
    9 + **6**=15
    15 + **2**=17
    17 + **6**=23
    23 + **2**=25

63. $5 - 3\frac{4}{5} = 1\frac{1}{5} = 1\ 1/5$

64. $9^4 \times 3^3 = 3^{11}$
    $\square = 11$

65. 90°

66. C

67. I(3, -4.5)

68. 12

69. 30 ft

70. 2×(1.5+2.7) = 8.4