ANSWER KEY

Summer Math Reinforcement Packet
Students Entering into 6th Grade

1. Check with a calculator. Practice any you do not know within 2 seconds.
2. Same as #1
3. B
4. D
5. B
6. D
7. A
8. B
9. D
10. A
11. B
12. B
13. D
14. A 50
    2 x 25
    2 x 5 x 5
15. B 84
    2 x 42
    2 x 2 x 21
    2 x 2 x 3 x 7
16. A
17. C
18. D 2/3÷3 or 3/1 2/3 x 1/3=(2 x 1)/(3 x 3)=2/9
19. C 1/3 ÷ 4 or 4/1 1/3 x ¼ = (1 x 1)/(3 x 4) = 1/12
20. D 2 ÷ ¼ = 2/1 x 4/1 = (2 x 4)/(1 x 1) = 8/1 or 8
21. D For adding and subtracting fractions you need a common denominator (bottom number of the fraction needs to be the same) so
    3 3/5 + 5 1/3 = 3 9/15 + 5 5/15 = 8 14/15.
22. B
23. B
24. A Change the denominator to 60 (12x5)
25. D ¾ + 4/7
26. B 3 7/8 – 1 3/4
27. B 1 – (1/3 + ¼) = 12/12 – (4/12 + 3/12)
28. B
29. D ½ + ¾ change the denominator to 4 so
    2/4 + ¾ = 5/4 = 1 ¼.
30. C $12.32 + $3.70.
31. C
32. B 10 x ¼ = 10/1 x ¼ = 10/4
33. C think fact family 5/12 – 1/3 = ?
34. B think fact family 11/2 – ¼ = ?
35. B Fact family ¾ - 1/3 = ?
36. C 1 ÷ 20 = .05 = 5%
37. B 7 ÷ 10 = .7 = 70%
38. D 12 x 12 x 12
39. B See terms
40. D See term
41. 186,932 12,168 38,502 7,360
42. B
43. B Count the squares or approx equivalent
44. B Area of Rec. A = 4 x 10 = 40 units^2 ;
    Area of Rec. B = 2 x 4 = 8 units^2 (8 x 5 = 40)
45. D
46. C
47. C See terms (pg. 2) for formula of rectangle and parallelogram.
48. B See terms (pg. 2) for formula of a triangle
    (½ of 6) x 10 = 3 x 10 = 30
49. D See terms for formula page 2
50. B
51. 24, 64, 42
    18, 25, 54
    40, 4, 12 8,
    49, 8 8, 9,
    24 5, 16,
    56 8, 9, 24
52. 254; 390; 1,118; 1,590; 1,482; 498; 874
53. 466.90 remember the decimals line up when + and -
54. C (1/2 of 12) x 16 = 6 x 16
55. C (1/2 of 8) x 3 = 4 x 3
56. B
57. B
58. A 4 = length; 3 = height
59. C 8 = length; 4 = height
60. D
61. B Area = length x height so 24 = 8 x ?
62. D Multiply each to see if it equals 36 A. 1 x 36 = 36

    B. 3 x 12 = 36 C. 4 x 9 =36 D. 5 x 7 = 35
63. C
64. D
65. D
66. D
67. B
68. A
69. 181.43 remember line up the decimal when + and -
70. C
71. B
72. A
73. A
74. C A straight line is 180^o so 180^o – 40 ^{o} = 140^o
75. C 180^o is a straight line and 90^o is a right angle ⌊
76. D A circle measures 360^o divide this by 6 pieces
77. C 180 – 50 = 130
78. 9, 18, 63, 12
    48, 4, 24, 81
    8, 49, 8, 0 8,
    2, 21 42

79. B A circle measures 360^o subtract all the measurements form this.
80. D
81. A Angle BCD = 180^o so 180 – 60 = 120
82. A See terms page
83. B
84. A
85. C Sum of interior angles of a triangle is 180^o and there are 3 triangles so 180 x 3 = 540
86. A
87. A Sum of interior angles of a triangle is 180^o so 180 – (60 + 90) = 30
88. D
89. C Sum of interior angles of a quadrilateral is 360^o so 360 – (90 + 90 + 45) = 135
90. A 250 – 200
91. C follow the dotted line for New Zealand
92. A 1300 – 1200
93. B Mean is average 2 + 1 + 1+ 4 = 8 8 ÷ 4 = 2
94. Mode = B (mode = most often)
Range = D 9 – 0
95. B
96. A
97. 666, 41, 63, 16, 20, 77, 42
In subtraction remember to borrow if the bottom number is bigger. Check you answer by adding.
98. 133.57; 31.96; 230.10; 0.504; 89.3; 20.16; 28.86
99. B
100. A or c
101. C
102. C Put numbers in order from smallest to largest then what number is in the middle
103. 1 Mode is number shown most often
104. Mode = 8 books see terms page
Mean = C
105. A (61 + 61 + 61 + 61 + 61 + 61 + 61 + 61 + 61 + 71) ÷ 10
or (61 x 9) +71 = 620 ÷ 10
106. B
107. C
108. Average (Mean) = 21; C; You need to add <u>all</u> the test scores again then divide by the total number of tests.
109. Philip forgot to "shift" the second partial product to the left, to account for the fact that "3318" i s really 3318 tens, or 33180. (Needed to add the place value 0)
110. A. **1,200; 3,600; 160,000** just multiply the 2 numbers (that are not zeros) then add all the zeros in the equation at the end of the answer. Ex. 400 x 3 = 4x3 =12 then add 2 zeros. 60 x 60 = 36 add 2 zeros.

B. **20; 5; 30** You can eliminate an equal number ofzeros on both sides of the ÷ sign; th en solve the division problem.
111. 1,692; 3,196; 2,301; 504; 893; 2,016; 2,886
112. The factor tree could show 27 divided into 9 x 3, then 3 x 3 x 3, $27 = 3^3$
113. They ate 7/12 of the pizza, so 5/12 is left or 5 slices.
114. 1 cubic inch is smaller than 1 cubic foot
1 cubic centimeter is smaller than 1 cubic meter
2 cubic feet is smaller than 1 cubic yard
115. The area of a rectangle is base times height. A rectangle can be divided into two right triangles by drawing the diagonal line. Each rectangle has a base of b and a height of h. Since each as and area ½ of the rectangle, the area of the triangle is ½ bh.
116. <DOE = 25^o , acute
<COD = 65^o, acute
<BOE = 145^o, obtuse
<AOC = 90^o, right
117. A = 130^o Sum of the 4 interior angles of a parallelogram(quadrilateral) is 360^o
B = 50^o this is the same as the opposite angle
C = 130^o
118. 700.09 line up the decimals
119. 700.23
120. 29.24
121. A. 1524 ÷ 6 = 254 so 254 x 6 = 1524
B. 380 ÷ 10 = 38 so 38 x 10 = 380
C. 4235 ÷ 10 = 423 r5 so 423 x 10 = 4230 + 5 = 4235
D. 769 ÷ 4 = 192 r1 so 192 x 4 = 768 + 1 = 769
E. 765 ÷ 5 = 153 so 153 x 5 = 765
122. 28, 0, 9, 40,36, 35, 7, 45,30, 55, 36, 72, 49, 63
8, 1,5, 4,6, 2, 3, 8,3, 4, 3, 4, 4
12, 16, 42,20, 144, 15, 18, 24, 0, 21, 25, 24, 27, 32
9, 4,8, 6
2, 7,2, 6,3, 8, 7, 5,9, 6, 8, 0, 8
54, 64, 36, 12, 4, 24,77, 30,56, 15, 14, 48, 20, 44
123. 1/2 = 0.5 = 50%
0.08 = 8/100 or 2/25 = 8%
20% = .2 = 1/5 or 2/10

124. **Fractions**: see terms
1 1/4
125. 4 1/15
126. 1/20

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