

Summer Math Packet

Entering 6th Grade

I hope you enjoy your summer and have a relaxing break! However, we don't want all the hard work you put into math this year to disappear, so use this math packet to keep your mind fresh and ready for 6th grade. Feel free to refer to your Big Ideas Math Workbooks and anything we put in your binder this year. Khan Academy and Math Antics are also great online resources that you can use for reference. I recommend doing a little bit each day, or a couple pages per week. Looseleaf may be needed for extra space. Remember, you don't want to be cramming it all in at the end of the summer when school is about to start. I have enjoyed my time with you during this school year, and I can't wait to see what you continue to accomplish as 6th graders!

Love,
Mrs. Hamilton

Lesson 1:

<p>1. Order the numbers from least to greatest. 45.24, 45.9, 45.444, 45.398, 45.4, 45.39</p>	<p>2. Simplify the following fractions.</p> <p>a. $\frac{16}{24}$</p> <p>b. $\frac{36}{60}$</p>	<p>3. Find the least common multiple (LCM): 45 and 9</p>
<p>4. Change to a mixed number. $\frac{100}{29}$</p>	<p>5. Multiply: $4,578 \times 86$</p>	<p>6. Add: $108,956 + 122,462$</p>
<p>7. Write 53.091 in word form.</p>	<p>8. Subtract: $\\$63.45 - \\18.99</p>	<p>9. Change to an improper fraction. $4\frac{3}{4}$</p>
<p>10. A man set a record of holding 9 eggs in one hand. Each egg weighed about 57 grams. What was the total weight of all the eggs?</p>		

Lesson 2:

<p>11. Find the greatest common factor (GCF): 80 and 24</p>	<p>12. Find the <u>area</u> and <u>perimeter</u> of a rectangle with length of 4 in. and width of 3 in.</p>	<p>13. Compare using <, >, or =. 345.873 _____ 345.803</p>
<p>14. Identify the place and value of the underlined digit. 90.8<u>2</u>4</p>	<p>15. Circle the digit is in the ten millions place. 204,567,000,345</p>	<p>16. Compare <, >, or =. 34.1 _____ 34.100</p>
<p>17. Add: $6\frac{3}{4} + 3\frac{1}{5}$</p>	<p>18. Add: $984 + 32.1$</p>	<p>19. Subtract: $34.56 - 2.9$</p>
<p>20. Your peppermint plant is $\frac{3}{10}$ inch tall. After one week, it is $\frac{1}{2}$ inch tall. How much did the plant grow in one week?</p>		

Lesson 3:

<p>21. Subtract: $13 - \frac{3}{8}$</p>	<p>22. Subtract: $450,000 - 123,678$</p>	<p>23. Solve: $2 + (64 - 58) \times 7$</p>
<p>24. Compare $<$, $>$, or $=$.</p> <p>$\frac{4}{12}$ _____ $\frac{6}{11}$</p>	<p>25. A clown is $5\frac{3}{4}$-ft tall while barefoot and $1\frac{1}{3}$-ft taller while wearing stilts. How tall is the clown while wearing stilts?</p>	<p>26. Convert: 5 gal = _____ pt</p>
<p>27. Write 45.702 in expanded form.</p>	<p>28. Multiply: 12.8×0.5</p>	<p>29. Divide: $76.65 \div 2.1$</p>
<p>30. Sandy had \$50 in her purse. She bought a shirt for \$10.98, pants that cost twice as much as the shirt, and shoes for \$15.20. How much change did she receive?</p>		

Lesson 4:

31. Round 13.48 to the tenths place.	32. Simplify the following fractions. a. $\frac{98}{6}$ b. $\frac{60}{90}$ c. $\frac{24}{4}$	33. Divide: $897.15 \div 15$
34. Divide: $12,364 \div 4$	35. Subtract: $9 - 4\frac{3}{10}$	36. Divide: $1\frac{2}{5} \div 1\frac{4}{10}$
37. Multiply: $2\frac{2}{3} \times 2\frac{4}{8}$	38. Two piano pieces at a recital are $5\frac{1}{2}$ minutes long. How long are the two pieces together?	39. Write the division problem as a fraction: $3 \div 9$. Then simplify the fraction.
40. An average person's upper leg bone measures 19.88 inches and the lower leg bone measures 16.94 inches. How much longer is the upper leg bone than the lower leg bone?		

Lesson 5:

<p>41. Subtract: $48 - 2.658$</p>	<p>42. Subtract: $9\frac{2}{3} - 4\frac{3}{4}$</p>	<p>43. Multiply: $1\frac{2}{5} \times 2\frac{6}{7}$</p>
<p>44. $z = 3\frac{5}{6}$, $y = 6\frac{1}{4}$. Using the given values, evaluate the expression: $y - z$</p>	<p>45. Use the same values from #44. Evaluate the expression: $y \times z$</p>	<p>46. Use the same values from #44. Evaluate the expression: $y + z$</p>
<p>47. Use the same values from #44. Evaluate the expression: $y \div z$</p>	<p>48. Evaluate the expression when $x = 6$ and $y = 17$. $x + (20 - y)$</p>	<p>49. Solve: $20 - \{4 + [4 + (10 \div 2)]\}$</p>
<p>50. Rick said $\frac{3}{5}$ of the movies people went to see this weekend were new releases. If there were 55 movies out, how many were new releases?</p>		

Lesson 6:

<p>51. Put the numbers in order from least to greatest. 8.97, 9.1, 8.09, 8.9, 9.09</p>	<p>52. Convert the mixed numbers to improper fractions.</p> <p>a. $2\frac{3}{4}$</p> <p>b. $4\frac{1}{5}$</p> <p>c. $6\frac{2}{3}$</p>	<p>53. Multiply: $\frac{12}{15} \times \frac{30}{36}$</p>
<p>54. Divide: $1,597 \div 25$. Write your answer as a decimal.</p>	<p>55. Amelia has 48 mL of water. How many liters is this?</p>	<p>56. Add: $\frac{15}{20} + \frac{1}{5}$</p>
<p>57. Order the fractions from least to greatest.</p> <p>$\frac{3}{4}, 1\frac{1}{2}, \frac{2}{3}, 1\frac{1}{4}$</p>	<p>58. Add:</p> <p>$32.1 + 2.69 + 3.44 + 11.6$</p>	<p>59. Multiply: 924.5×0.25</p>
<p>60. Fred has to read a book for a test in 2 weeks. If he reads the same number of pages per day and the book has 350 pages, how many pages does he need to read each day?</p>		

Lesson 7:

61. Subtract: $2\frac{2}{3} - 1\frac{1}{4}$	62. Subtract: $367 - 23.79$	63. Divide: $86.24 \div 3.2$
64. Add: $\frac{4}{6} + \frac{5}{12}$	65. Multiply: 8.99×3.2	66. Solve: $6^2 - 12 \div 3 + (15 - 7)$
67. Compare $<$, $>$, or $=$. $10\frac{1}{2}\text{ft} \underline{\hspace{1cm}}$ 127in	68. Use a property of multiplication to solve. Identify the property used. $(34 \times 5) \times 2$	69. Charlie baked 480 cookies. There are 20 classes that need to share the cookies. How many cookies will each class receive?
70. After cleaning out a junk yard, 45 tons of trash were removed from the location. How many pounds of trash was removed?		

Lesson 8:

<p>71. Subtract: $65,900 - 23,477.25$</p>	<p>72. Add: $34.78 + 50.891$</p>	<p>73. Order the fractions from greatest to least. $\frac{7}{9}, \frac{2}{3}, \frac{1}{6}, \frac{5}{18}$</p>
<p>74. Round to the ones place. 78.857</p>	<p>75. Simplify the following fractions. a. $\frac{60}{120}$ b. $\frac{80}{22}$ c. $\frac{20}{55}$</p>	<p>76. Find the GCF and LCM of 12 and 16.</p>
<p>77. Compare using $<$, $>$, or $=$. a. $\frac{2}{7}$ _____ $\frac{3}{8}$ b. $2\frac{1}{2}$ _____ $2\frac{1}{3}$ c. $\frac{3}{7}$ _____ $\frac{4}{9}$</p>	<p>78. Multiply: 0.084×10^3</p>	<p>79. Subtract: $400 - 12.98$</p>
<p>80. Sarah went to the fair with \$15. On the first day, she ate four items costing \$0.75 each. She played 9 games that cost \$0.50 each and 4 games that cost \$1.00. How much money did she spend on day 1? How much money does she have to start the second day at the fair?</p>		

Lesson 9:

<p>81. Divide: $75,825 \div 30$. Write your answer as a decimal.</p>	<p>82. Find the area of the following figures:</p> <p>a. Square with 4 cm sides</p> <p>b. Rectangle with length of 3 cm and width of 5 cm</p>	<p>83. Use divisibility rules to determine if 2, 3, 4, 5, 6, 9, or 10 go evenly into these numbers.</p> <p>a. 38,280</p> <p>b. 945</p> <p>c. 683</p>
<p>84. Multiply: $1,298 \times 68$</p>	<p>85. Subtract: $25,000,120 - 9,876,121$</p>	<p>86. Add: $6\frac{7}{8} + 2\frac{3}{4}$</p>
<p>87. Subtract: $\frac{5}{8} - \frac{1}{4}$</p>	<p>88. Round 78.857 to the hundredths place.</p>	<p>89. Add: $\frac{7}{8} + \frac{9}{10}$</p>
<p>90. One pound of sliced turkey costs \$7.98. You buy 1.5 pounds of turkey. You also buy a bag of sandwich rolls for \$3.69. How much do you spend altogether?</p>		


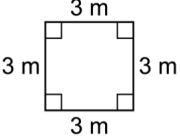
Lesson 10:

<p>91. Convert.</p> <p>a. 505 cm = _____ m</p> <p>b. 170 mL = _____ L</p> <p>c. 4.58 km = _____ m</p> <p>d. 0.062 g = _____ mg</p> <p>e. 0.02 km = _____ cm</p>	<p>92. Order from least to greatest.</p> <p>$1\frac{3}{4}$, $\frac{5}{6}$, $\frac{7}{9}$, 1.5, $\frac{5}{4}$</p>	<p>93. Multiply: $\frac{5}{7} \times 8\frac{3}{4}$</p>
<p>94. Write the reciprocal of the fractions.</p> <p>a. $\frac{4}{5}$</p> <p>b. $\frac{3}{5}$</p> <p>c. $\frac{40}{6}$</p> <p>d. $\frac{1}{5}$</p>	<p>95. Divide: $5\frac{1}{2} \div 3\frac{2}{3}$</p>	<p>96. Add:</p> <p>$3.6 + 4.24 + 23.9 + 0.987$</p>
<p>97. Write the prime factorization in numerical order and exponential form:</p> <p>45</p>	<p>98. Divide: $\frac{1}{2} \div 6$</p>	<p>99. Divide: $4 \div \frac{8}{9}$</p>
<p>100. The principal of a school is buying 3 computers at \$900 each. She can pay \$98 per month instead of paying for them at once. Will she have paid for the computers by the end of the 12 months? Explain.</p>		

Lesson 11:

<p>101. Add: $14\frac{6}{11} + 2\frac{7}{22}$</p>	<p>102. Multiply: $9 \times \frac{28}{36}$</p>	<p>103. Divide: $78.4 \div 0.14$</p>
<p>104. Add: $60,275 + 24,845$</p>	<p>105. Multiply: $5\frac{1}{2} \times \frac{22}{33}$</p>	<p>106. Circle all the composite numbers.</p> <p>13 90 51 81</p> <p>73 17 63 97</p>
<p>107. Solve: $36 \div (2 + 4) + 7 \times 4$</p>	<p>108. Divide:</p> <p>a. $3,600 \div 60 =$</p> <p>b. $45,000 \div 900 =$</p> <p>c. $270,000 \div 3,000 =$</p>	<p>109. Multiply: $\frac{4}{6} \times \frac{6}{18}$</p>
<p>110. Claire drove 2.9 miles to the north, 3.4 miles to the east, and 3.7 miles to the south. How many miles did she drive in all? Bob drove 7.5 miles altogether. Who drove farther? By how much?</p>		

Lesson 12:

<p>111. Find the perimeter of an object with sides that equal 2.2 in, 3.35 in, 3.791 in, and 1 in.</p>	<p>112. Multiply:</p> <p>a. $120 \times 700 =$</p> <p>b. $900 \times 40 =$</p> <p>c. $11,000 \times 300 =$</p>	<p>113. Subtract: $9\frac{1}{3} - 3\frac{2}{3}$</p>
<p>114. Convert: $4\frac{1}{2}$yd = _____ ft</p>	<p>115. Classify the triangle by its angles and sides.</p> 	<p>116. Classify the 4-sided figure in as many ways as possible.</p> 
<p>117. How many yards are in 5 miles?</p>	<p>118. Subtract: $10\frac{1}{5} - 6\frac{3}{4}$</p>	<p>119. Subtract: $65,000,001 - 43,122,008$</p>
<p>120. John has $1\frac{1}{2}$ hours of homework Monday through Thursday and $2\frac{3}{4}$ hours over the weekend. How much homework does he have throughout the whole week?</p>		

Answer Key

Lesson 1

1. 45.24; 45.39; 45.398; 45.4; 45.444; 45.24	2. a. $\frac{2}{3}$ b. $\frac{3}{5}$	3. LCM = 45
4. $3\frac{13}{29}$	5. 393,708	6. 231,418
7. fifty-three and ninety-one thousandths	8. \$44.46	9. $\frac{19}{4}$
10. 513 grams		

Lesson 2

11. GCF = 8	12. Area = 12 sq. in Perimeter = 14 in	13. >
14. Place - hundredths Value - 0.02	15. 204,5 <u>6</u> 7,000,345	16. =
17. $9\frac{19}{20}$	18. 1,016.1	19. 31.66
20. $\frac{1}{5}$ inch		

Lesson 3

21. $12\frac{5}{8}$	22. 326,322	23. 44
24. <	25. $7\frac{1}{12}$	26. 40 pt
27. $(4 \times 10) + (5 \times 1) + (7 \times \frac{1}{10}) + (2$	28. 6.4	29. 36.5
30. \$1.86		

Lesson 4

31. 13.5	32. a. $16\frac{1}{3}$ b. $\frac{2}{3}$ c. 6	33. 59.81
34. 3,091	35. $4\frac{7}{10}$	36. 1
37. $6\frac{2}{3}$	38. 11 minutes	39. $\frac{1}{3}$
40. 2.94 inches		

Lesson 5

41. 45.342	42. $4\frac{2}{3}$	43. 4
44. $2\frac{5}{12}$	45. $23\frac{23}{24}$	46. $10\frac{1}{12}$
47. $1\frac{29}{46}$	48. 9	49. 7
50. 33 new releases		

Lesson 6

51. 8.09; 8.9; 8.97; 9.09; 9.1	52. a. $\frac{11}{4}$ b. $\frac{21}{5}$ c. $\frac{20}{3}$	53. $\frac{2}{3}$
54. 63.88	55. 0.048	56. $\frac{19}{20}$
57. $\frac{2}{3}$, $\frac{3}{4}$, $1\frac{1}{4}$, $1\frac{1}{2}$	58. 49.83	59. 231.125
60. 25 pages per day		

Lesson 7

61. $1\frac{5}{12}$	62. 343.21	63. 26.95
64. $1\frac{1}{12}$	65. 28.768	66. 40
67. <	68. 340; Commutative Property of Multiplication	69. 24 cookies
70. 90,000 pounds		

Lesson 8

71. 42,422.75	72. 85.671	73. $\frac{7}{9}$, $\frac{2}{3}$, $\frac{5}{18}$, $\frac{1}{6}$
74. 79	75. a. $\frac{1}{2}$ b. $3\frac{7}{11}$ c. $\frac{4}{11}$	76. GCF = 4, LCM = 48
77. a. < b. > c. <	78. 84	79. 387.02
80. Day 1: \$8.50 Day 2 Starting Amount: \$6.50		

Lesson 9

81. 2,527.5	82. a. 16 cm^2 b. 15 cm^2	83. a. 2, 3, 4, 5, 6, 10 b. 3, 5, 9 c. none
84. 88,264	85. 15,123,999	86. $9\frac{5}{8}$

87. $\frac{3}{8}$	88. 78.86	89. $1\frac{31}{40}$
90. \$15.66		

Lesson 10

91. a. 5.05 b. 0.17 c. 4,580 d. 62 e. 2,000	92. $\frac{7}{9}, \frac{5}{6}, \frac{5}{4}, 1.5, 1\frac{3}{4}$	93. $6\frac{1}{4}$
94. a. $\frac{5}{4}$ b. $\frac{5}{3}$ c. $\frac{6}{40}$ d. 5	95. $1\frac{1}{2}$	96. 32.727
97. $3 \times 3 \times 5$ (numerical order) $3^2 \times 5$ (exponential form)	98. $\frac{1}{12}$	99. $4\frac{1}{2}$
100. No, she will not have paid for the computers. 3 computers costs \$2,700. She will have only paid \$1,176 at the end of the 12 months.		

Lesson 11

101. $6\frac{19}{22}$	102. 7	103. 560
104. 85,120	105. $3\frac{2}{3}$	106. 13 90 51 81 73 17 63 97
107. 34	108. a. 60 b. 50 c. 90	109. $\frac{2}{9}$
110. Claire drove 10 miles, so she drove farther by 2.5 miles.		

Lesson 12

111. 10.341 in	112. a. 84,000 b. 36,000 c. 3,300,000	113. $5\frac{2}{3}$
114. $13\frac{1}{2}$ feet	115. obtuse isosceles	116. quadrilateral, parallelogram, rectangle, rhombus, square
117. 8,800 yards	118. $3\frac{9}{20}$	119. 21,877,993
120. $8\frac{3}{4}$ hours		