15 June 2017

Rising 6th Graders and their Parents:

I have attached 4 sheets which the students can use to review material covered in 5^{th} grade math and to prepare for the early part of 6^{th} grade.

They can expect a test on this study sheet within the first week of 6th grade.

The 4 worksheets are copies of the course pre-course recommended practice from the 6th grade textbook. The content is a review of material covered in the 5^{th} grade. I include them here so they can use them to review what they learned in 5^{th} grade.

I expect these worksheets will take approximately 6 hours to complete (this is an average – it will vary with each worksheet and with each student). Students should plan their time accordingly. If students need assistance I recommend www.khanacademy.org. Simply search the topic and lesson are there that teach the topic. A free account can be made and progress may be tracked by you but is not necessary.

These worksheets must be completed over the summer and turned in during the first math class in 6th grade. As always, I encourage students to show all work for each problem and to do their work neatly and legibly on a separate piece of paper. This packet will be graded and entered as the student's first "class work" grade (so, it will count as a quiz).

Please note that this is a minimum requirement. Students who want to prepare more thoroughly for 6th grade math can study ahead. I will not check if they have done this nor will I collect anything, but looking ahead may be a good way to anticipate what is coming and to prepare for it.

I hope the students enjoyed their 5th grade year and are excited about their move to middle school. I've provided the pre-course recommended practice and written this note with the intent of helping them retain what they learned in 5th grade and to help them prepare for the new school year. If you have any questions or concerns, please contact me at school.

Thank you for your attention,

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Pre-Course Practice



Number Sense

Whole Number Concepts (Skills Review, pp. 681–685) Write the number in expanded form.

1. 4966

2. 10,847

3. 821,004

4. 5,006,607

Write the number in standard form.

5. $5 \times 10{,}000 + 5 \times 1{,}000 + 8 \times 10 + 6 \times 1$ **6.** Nine million, four hundred sixty thousand, nine

Use a number line to order the numbers from least to greatest.

7. 5, 11, 3, 12, 9, 16

8. 24, 21, 19, 14, 2, 16 **9.** 9, 10, 31, 20, 12, 7 **10.** 23, 29, 17, 34, 10, 12

Use a number line to compare the numbers.

11. 8 and 9

12. 12 and 22

13. 2 and 0

14. 64 and 46

Round the number to the place value of the red digit.

15. 702

16. 4352

17. 28,856

18. 199,431

Copy and complete the number fact family.

19. $8 \times 4 = 32$ $? \times 8 = 32$ $? \div 8 = 4$ $32 \div ? = 8$

Copy and complete the equation.

20. 6 + ? = 13

21. $? \times 5 = 25$

22. ? - 9 = 9 **23.** $56 \div ? = 8$

Test the number for divisibility by 2, 3, 5, 6, 9, and 10.

24. 405

25. 900

26. 1986

27. 2050

Fraction Concepts (Skills Review, p. 686)

Write a fraction to represent the shaded part of the set or region.

28.



29.



30.

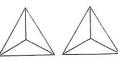


31.

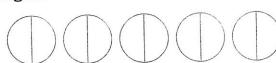


Write a mixed number to represent the shaded region.

32.



33.



Number Operations

Whole Number Operations (Skills Review, pp. 687–690)

Use a number line to find the sum or difference.

$$34.8 + 9$$

Find the sum or difference.

Find the product.

46.
$$33 \times 10$$

47.
$$81 \times 81$$

48.
$$433 \times 11$$

49.
$$851 \times 35$$

51.
$$1789 \times 358$$

52.
$$4133 \times 277$$

53.
$$1800 \times 1000$$

Find the quotient.

Estimation (Skills Review, pp. 691–694)

Estimate the sum.

64.
$$682 + 702 + 710$$

Estimate the difference.

Find a low and high estimate for the product.

70.
$$38 \times 16$$

71.
$$44 \times 78$$

72.
$$712 \times 45$$

73.
$$928 \times 65$$

Use compatible numbers to estimate the product.

74.
$$556 \times 444$$

75.
$$888 \times 559$$

76.
$$7088 \times 88$$

77.
$$8011 \times 66$$

Find a low and high estimate for the quotient.

78.
$$123 \div 4$$

Use compatible numbers to estimate the quotient.

Solving Real-World Problems (Skills Review, pp. 695–696)

- **86.** A Web site received 6395 hits the first week. The next week it received 2768 hits. How many hits did the Web site receive in all?
- 87. An arena sold 12,217 tickets for a baseball game and 2250 tickets for a garden show. How many more tickets were sold for the game?
- 88. There are 62 windows on each story of a skyscraper that is 43 stories tall. How many windows are there altogether?
- 89. Tickets for a school production of a play sold for \$9 each. The ticket sales for the play totaled \$3213. How many tickets were sold?

Measurement and Geometry

Time (Skills Review, pp. 697–698)

Copy and complete.

90.
$$72 h = ? d$$

92.
$$300 \text{ min} = ? \text{ h}$$

91.
$$3 \text{ wk} = ? d$$
 92. $300 \text{ min} = ? h$ **93.** $15 \text{ min} = ? \text{ sec}$

Copy and complete the statement using <, >, or =.

- 98. How long was a game that began at 2:15 P.M. and ended at 5:10 P.M.?
- 99. You talked on the phone with your aunt for 20 minutes, your friend for 29 minutes, and your math project partner for 48 minutes. Estimate how long you were on the phone.
- 100. It takes you about 115 minutes to mow 4 lawns. Estimate how long it takes you to mow each lawn.

Using Measurement Tools (Skills Review, pp. 699–700)

Use a ruler to draw a segment with the given length.

101. 5 centimeters **102.**
$$2\frac{1}{2}$$
 inches

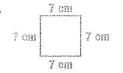
101. 5 centimeters **102.**
$$2\frac{1}{2}$$
 inches **103.** 6.5 centimeters **104.** $4\frac{15}{16}$ inches

- 105. Use a compass to draw a circle with radius 6 centimeters.
- **106.** Use a compass to draw a circle with radius 3 inches.
- 107. Use a compass to draw a segment whose length is the sum of the lengths of the two given segments.

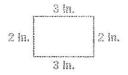
Basic Geometric Figures (Skills Review, p. 701)

Find the perimeter.

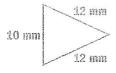
108.



109.



110.



Draw and label the figure described. Then find its perimeter.

111. A square with sides 2 in. long

112. A rectangle with a length of 4 cm and a width of 2 cm



Data Analysis

Venn Diagrams and Logical Reasoning (Skills Review, p. 702)

- **113.** Draw a Venn diagram of the whole numbers less than 12 where set *A* consists of numbers that are greater than 8 and set *B* consists of odd numbers.
- **114.** Use the Venn diagram you drew in Exercise 113 to tell whether the following statement is *true* or *false*. Explain your reasoning. *There is only one odd number greater than 8 and less than 12.*

Data Displays (Skills Review, pp. 703-704)

In Exercises 115 and 116, use the bar graph, which shows the results of a survey on favorite ice cream flavors.

- **115.** Which flavor is favored the most?
- **116.** How many more people prefer chocolate than rocky road?

In Exercises 117 and 118, use the line graph, which shows the number of Atlantic hurricanes by year.

- 117. In which year were there 9 hurricanes?
- **118.** Between which two years did the number of hurricanes decrease?
- **119.** In a survey, 12 students were asked how many books they read over the summer. Their responses were 1, 2, 0, 4, 1, 2, 3, 1, 0, 6, 2, 3. Make a line plot of the data.
- **120.** Use the line plot you made in Exercise 119 to determine how many students read more than 2 books.

