

Name _____

Rising 6th Grade Summer 2022 Mathematics Packet

Welcome to 6th grade mathematics at The Village School. This packet consists of important concepts necessary for success in 6th grade math. Completion of this packet is mandatory for all 6th grade students and must be done in pencil. As you complete this packet, show all steps used to arrive at your final answer in the space provided or on a separate piece of paper labeled accordingly.

Operations with Whole Numbers

1.) $70035 + 197 =$

2.) $1038 + 87 + 103 =$

3.) $7005 - 127 =$

4.) $3896 - 12 + 1605 =$

5.) $5031 - 102 =$

6.) $207 \times 73 =$

7.) $16 \times 12 \times 7 =$

8.) $221 \div 13 =$

9.) $7608 \div 12 =$

$10.) 3672 \div 12 \times 6 =$

$11.) 15 \times 13 =$

$12.) 109 \times 67 =$

Operations with Decimals

$1.) 7.906 + 1.72 =$

$2.) 102 + 17.08 =$

$3.) 34.05 + 7.4 =$

$4.) 10.056 - 6.83 =$

$5.) 237.05 - 75.008 =$

$6.) 400 - 12.87 =$

$7.) 4.23 \times 5 =$

$8.) 31.02 \times 4 =$

$9.) 59.7 \div 4 =$

$10.) 9.5 \div 5 =$

$11.) 3.001 - 1.02 =$

$12.) 2.03 + 34.1 =$

Operations with Fractions

1.) Simplify the fractions:

a.) $35/49 =$

b.) $10/12 =$

c.) $15/45 =$

2.) Write the reciprocal of:

a.) $7/8 =$

b.) $3 =$

c.) $1/18 =$

Solve:

3.) $\frac{1}{16} + \frac{4}{16} =$

4.) $\frac{15}{26} + \frac{5}{26} =$

5.) $\frac{4}{7} + \frac{9}{28} =$

6.) $\frac{2}{3} - \frac{1}{4} =$

7.) $\frac{8}{9} - \frac{1}{18} =$

8.) $\frac{1}{3} \times \frac{3}{5} =$

9.) $\frac{3}{8} \times \frac{2}{9} =$

10.) $\frac{1}{4} \div \frac{1}{2} =$

11.) $\frac{9}{10} \div \frac{3}{5} =$

$$12.) \frac{4}{9} \div \frac{1}{3} =$$

$$13.) \frac{8}{9} \times \frac{2}{3} =$$

Mixed Numbers

$$1.) \text{ Change to improper fraction: } 3\frac{5}{7} =$$

$$2.) \text{ Change to mixed number: } \frac{20}{9} =$$

$$3.) 10\frac{1}{5} + 3\frac{2}{5} =$$

$$4.) 4\frac{5}{8} - \frac{1}{8} =$$

$$5.) 8\frac{2}{5} - 6\frac{3}{10} =$$

$$6.) 9\frac{4}{5} + 8\frac{1}{2} =$$

$$7.) 2 \times \frac{5}{8} =$$

$$8.) 3 \times 1\frac{5}{6} =$$

$$9.) 2\frac{1}{3} \div 1\frac{3}{4} =$$

$$10.) 3\frac{1}{3} \div 5 =$$

Ordering Numbers

1.) Order the numbers from least to greatest: 246.8 , 248.6, 244.9, 246.5

2.) Order the numbers from least to greatest: 9, 6.7, 7.24, 14

3.) Order the numbers from least to greatest: 17.8 , 3 4 , 0.8, 15, 1.25

4.) Order the numbers from least to greatest: 3.1, 2.03, 1.99, 2.13, 3.12

Decimals and Place Value

Students will be able to determine the place value of a given digit.

Write the value of the underlined digit.

1) 842,976 _____ 2) 761.032 _____

3) Write seven and ninety-six thousandths as a decimal. _____

4) Write 9.204 in words. _____

5) Write 1.073 in words. _____

Comparing and Ordering Decimals

Students will be able to compare decimals and order decimals from least to greatest. Write the decimals in order from least to greatest.

1.) 7.21 0.712 72.1 0.721 : _____

2.) 0.01010 0.10101 0.01001 0.00101 : _____

Compare using $>$, $<$, or $=$

3.) 0.0307 _____ 0.003007 4.) 0.1 _____ 0.003 5.) 6.954 _____ 8.96

Rounding

Students will be able to round numbers to a given place value.

1.) Round 15,763.753 to the nearest hundredth. _____

2.) Round 96.3721 to the nearest tenth. _____

3.) Round 123.9842 to the place of the underlined digit. _____

4.) Round 2,348,721.5295 to the nearest thousandths. _____

5.) Round 287.261098 to the place of the underlined digit. _____

Volume

1.) Kevin built a cardboard box 12 inches long, 8 inches wide, and 10 inches high. How much space can the box hold?

Answer: _____

2.) Alice had a new hot tub installed with dimensions 8ft long, 6ft wide, and 3ft deep. How much water will the hot tub hold?

Answer: _____

3.) Calculate the volume of the rectangular prism with a length of 10 feet, a width of 6 feet, and a height of 4 feet.

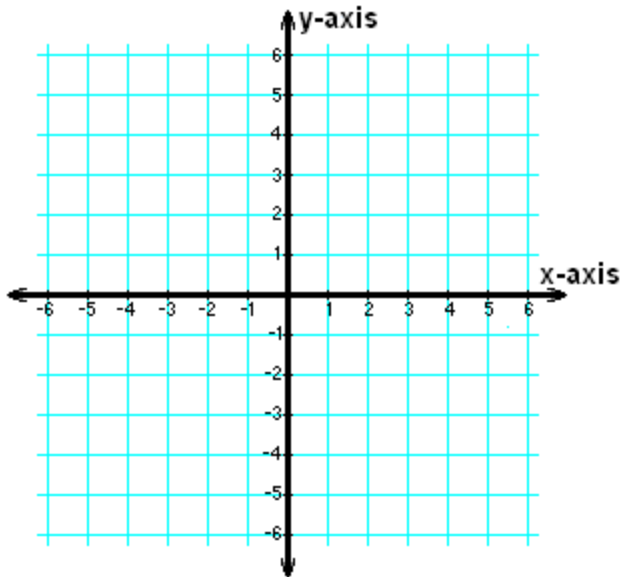
Answer: _____

4.) Find the volume of a cube with side lengths of 16 meters?

Answer: _____

The Coordinate Plane

Graph each point: A(2,0), B(-3,-4), C(2,-5), D(-1,4), E(1,2), F(0,-3)



Units of Measure

1.) 27 ft = _____ yd

2.) 6 C = _____ pt

3.) 6 ft = _____ in

4.) 10 C = _____ pt

5.) 12 ft = _____ in

6.) 6 ft = _____ yd

7.) 30 ft = _____ yd

8.) 60 in = _____ ft

9.) 28 qt = _____ gal

10.) 2 qt = _____ C

11.) 24 qt = _____ gal

12.) 10 ft = _____ in

13.) 4 C = _____ qt

14.) 7 yd = _____ ft

15.) 8 yd = _____ ft

16.) 5 yd = _____ ft

17.) 4 pt = _____ C

18.) 9 pt = _____ C

FUN ACTIVITIES

Here are a few fun activities you need to complete.

1. Multiplication War

With a regular deck of cards, you and a partner flip 2 cards each at the same time. Multiply the values of your own cards and whomever has the highest value keeps all 4 cards. Continue to do this until one player has all the cards. That person WINS! To show that you have completed this activity, write your math multiplication problems down on paper from at least one game.

*****Add a challenge round for ties where you will each flip 3 cards to multiply at the same time.*****

(Face Card Values as follows: A = 1 J = 11 Q = 12 K = 13)

2. Math in the Kitchen

Find a cookie recipe you would like to share with some friends. Write the recipe down. Double (multiply by 2) the recipe and write the new amount of each of the ingredients you will need. With adult supervision, bake your cookies, take pictures of them and enjoy! Create a slide of the original recipe, the doubled recipe and a picture of the finished product!

3. Food To-Go

Find your favorite restaurant's menu. Write down an order for 4 people. You must order 2 appetizers, 4 entrees, 2 extra sides, 2 desserts and 4 beverages. You will find the price for each item and add to find the total before tax. Then you will multiply that number by 0.07 to find the tax amount.

Bonus: Find the value of a 20% tip.