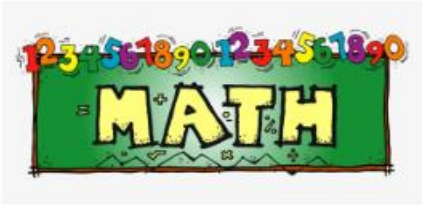


Ansonia Public Schools in Ansonia, Connecticut
MATH Summer Practice for a Student Entering Grade 6

Name: _____

Team: _____

Please complete your summer review packet in preparation for the next school year. Please show as much work as you can for each problem. Read the directions carefully because some pages do not require all questions be answered.

This packet was designed to help you retain important skills needed to move forward in math. Those students who **complete this packet or pass 20 i-ready online assignments** will start the year with a 100% quiz grade. You can choose which option you would like.

The i-ready online assignments are part of the mypath you have been working on all year. If you have an i-pad at home, there is an "i-Ready Connect for Students" app you can download for free. There are also 2 computers at the public library for use.

Helpful Websites:
Virtual Manpulatives: https://mathigon.org/polypad
Multiplication practice: https://mathigon.org/multiply
Resources videos: youtube or khan academy
Graphing Calculator: desmos.com

The packet or online activities need to be **completed by September 1st** to count for quiz grade.

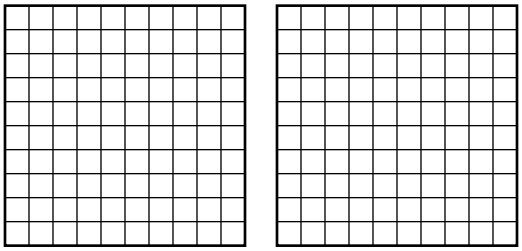
Grade 5 Math concepts covered in this packet

Grade 5 Math concepts covered in this packet (Continued)

Understanding of Place Value

Name: _____

1 The decimal grid in each model represents 1 whole. Shade each model to show the decimal number below the model.



0.5 **0.05**

Complete the comparison statements.

0.05 is _____ of 0.5.

0.5 is _____ times the value of 0.05.

Complete the equations.

$0.5 \div$ _____ $= 0.05$

$0.05 \times$ _____ $= 0.5$

2 Draw a number line from 0 to 2. Then draw and label points at 2 and 0.2.

Use the number line to explain why 2 is 10 times the value of 0.2.

Complete the equations to show the relationship between 2 and 0.2.

$0.2 \times$ _____ $= 2$

$2 \div$ _____ $= 0.2$

3 Which type of model do you like best? Explain why.

Comparing Decimals

Name: _____

Write the symbol <, =, or > in each comparison statement.

1. 0.02 _____ 0.002
2. 0.05 _____ 0.5
3. 0.74 _____ 0.84
4. 0.74 _____ 0.084
5. 1.2 _____ 1.25
6. 5.130 _____ 5.13
7. 3.201 _____ 3.099
8. 0.159 _____ 1.590
9. 8.269 _____ 8.268
10. 4.60 _____ 4.060
11. 302.026 _____ 300.226
12. 0.237 _____ 0.223
13. 3.033 _____ 3.303
14. 9.074 _____ 9.47
15. 6.129 _____ 6.19
16. 567.45 _____ 564.75
17. 78.967 _____ 78.957
18. 5.346 _____ 5.4
19. 12.112 _____ 12.121
20. 26.2 _____ 26.200
21. 100.32 _____ 100.232

22. What strategies did you use to solve the problems? Explain.

Rounding Decimals

Name: _____

Round each decimal to the nearest tenth.

1. 0.32 _____
2. 3.87 _____
3. 0.709 _____
4. 12.75 _____
5. 12.745 _____
6. 645.059 _____

Round each decimal to the nearest hundredth.

7. 1.079 _____
8. 0.854 _____
9. 0.709 _____
10. 12.745 _____
11. 645.059 _____
12. 50.501 _____

Round each decimal to the nearest whole number.

13. 1.47 _____
14. 12.5 _____
15. 200.051 _____

16. Write two different decimals that are the same value when rounded to the nearest tenth. Explain why the rounded values are the same.

17. Round 1.299 to the nearest tenth and to the nearest hundredth. Explain why the rounded values are equivalent.

Multiplying Multi-Digit Whole Numbers

Name: _____

Estimate. Circle all the problems with products between 3,000 and 9,000. Then find the exact products of only the problems you circled.

1 132 × 34

2 247 × 15

3 145 × 23

4 308 × 12

5 158 × 41

6 364 × 32

7 400 × 29

8 254 × 17

9 187 × 42

10 216 × 12

11 323 × 18

12 194 × 26

13 317 × 14

14 385 × 31

15 285 × 27

16 What strategies did you use to solve the problems? Explain.

Multiplying with the Standard Algorithm

Name: _____

The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 580 × 30

2 3,104 × 18

3 1,482 × 38

4 1,085 × 17

5 1,236 × 55

6 1,625 × 18

7 2,105 × 13

8 1,788 × 15

9 2,500 × 19

10 648 × 32

11 2,409 × 23

12 306 × 62

13 2,417 × 24

14 650 × 35

15 962 × 44

Answers

20,736	17,400	27,365	47,500	55,872
18,972	18,445	26,820	67,980	56,316
22,750	29,250	55,407	42,328	58,008

Adding Decimals

Name: _____

Circle all the problems with sums less than 5.
Then find the exact sums of only the problems you circled.

1 0.24 + 4.25

_____

2 4.8 + 0.16

_____

3 2.31 + 2.075

_____

4 2.31 + 2.7

_____

5 0.909 + 4.09

_____

6 3.99 + 1.109

_____

7 2.675 + 2.325

_____

8 3.775 + 0.225

_____

9 2.06 + 2.933

_____

10 2.6 + 2.933

_____

11 1.809 + 3.091

_____

12 3.01 + 1.991

_____

13 1.83 + 3.1 + 0.1

_____

14 0.012 + 3.79 + 1.101

_____

15 2.6 + 2.04 + 0.099

_____

16 What strategies did you use to solve the problems?

Subtracting Decimals to Hundredths

Name: _____

The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 7.5 − 1.2

_____

2 10.75 − 4.13

_____

3 20.2 − 14.8

_____

4 6.12 − 0.7

_____

5 41.5 − 33.25

_____

6 15.9 − 8.92

_____

7 105.53 − 99.28

_____

8 9.46 − 3.68

_____

9 74 − 65.9

_____

10 5.05 − 0.56

_____

11 31.27 − 23.67

_____

12 256.4 − 248.38

_____

13 12 − 4.39

_____

14 1,280.01 − 1,272.77

_____

15 500.2 − 494.94

_____

Answers

6.25	5.26	6.62	8.1	7.6
4.49	8.25	7.61	6.98	5.42
7.24	5.4	8.02	5.78	6.3

Using Estimation with Decimals

Name: _____

Solve the problems.

1 Lori needs at least 12 liters of water to fill a water cooler. She has a container with 4.55 liters of water, a container with 3.25 liters of water, and a container with 4.85 liters of water. Does she have enough water? Use estimation only to decide. Explain why you are confident in your estimate.

2 Nia wants the total weight of her luggage to be no more than 50 kilograms. She has three suitcases that weigh 15.8 kilograms, 17.42 kilograms, and 16.28 kilograms. Is the total weight within the limit? Use only estimation to decide. Explain how you know your estimate gives you the correct answer.

3 Omar measures one machine part with length 4.392 centimeters and another part with length 6.82 centimeters. What is the difference in length? Use estimation to check your answer for reasonableness.

Name: _____

4 Kyle wants to buy a hat for $5.75, a T-shirt for $7.65, and a keychain for $3.15. He has $16. Does he have enough money? Use estimation only to decide. Explain why you are confident in your estimate.

5 For his hiking club, Ricardo is making a container of trail mix with 3.5 kilograms of nuts. He has 1.78 kilograms of peanuts and 0.625 kilograms of almonds. The rest of the nuts will be cashews. How many kilograms of cashews does he need? Use estimation to check your answer for reasonableness.

6 Suppose you want to be sure that the total cost of three items does not go over a certain amount. How can you use estimation only to solve the problem?

Multiplying a Decimal by a Whole Number

Name: _____

Multiply.

1 3×0.2 _____

2 3×0.03 _____

3 3×0.23 _____

4 4×0.08 _____

5 4×1.1 _____

6 4×1.18 _____

7 6×0.07 _____

8 6×1.1 _____

9 6×1.17 _____

10 21×0.05 _____

11 21×1.05 _____

12 21×2.05 _____

13 9×3.25 _____

14 5×0.87 _____

15 11×3.68 _____

16 16×6.4 _____

17 7×6.89 _____

18 32×5.12 _____

19 How did you know where to put the decimal point in problem 6?

Multiplying Decimals Less Than 1

Name: _____

Multiply.

1 0.5×3 _____

2 0.5×0.3 _____

3 0.5×0.03 _____

4 6×0.2 _____

5 0.6×0.2 _____

6 0.06×0.2 _____

7 0.8×0.1 _____

8 0.8×0.2 _____

9 0.8×0.3 _____

10 0.4×0.02 _____

11 0.4×0.04 _____

12 0.4×0.12 _____

13 0.3×0.4 _____

14 0.6×0.4 _____

15 0.6×0.8 _____

16 0.01×0.5 _____

17 0.05×0.5 _____

18 0.25×0.5 _____

19 Describe a pattern you noticed when you were completing the problem set.

Multiplying with Decimals Greater Than 1

Name: _____

The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 0.3×1.2 _____

2 1.2×0.4 _____

3 1.2×1.1 _____

4 0.3×12.1 _____

5 4.4×1.1 _____

6 0.02×1.8 _____

7 7.1×5.1 _____

8 6.6×0.02 _____

9 2.4×4.8 _____

10 9.2×5.24 _____

11 1.2×1.24 _____

12 8.4×6.2 _____

13 4.2×3.21 _____

14 4.25×8.5 _____

15 1.9×2.78 _____

Answers

0.132	1.32	13.482	1.488	48.208
4.84	0.48	52.08	11.52	5.282
36.125	0.036	0.36	3.63	36.21

Dividing by Hundredths

Name: _____

Divide.

1 1 ÷ 0.25

_____

2 4 ÷ 0.25

_____

3 3.75 ÷ 0.25

_____

4 6.5 ÷ 0.25

_____

5 1.8 ÷ 9

_____

6 1.8 ÷ 0.9

_____

7 1.8 ÷ 0.09

_____

8 225 ÷ 75

_____

9 22.5 ÷ 7.5

_____

10 2.25 ÷ 0.75

_____

11 0.36 ÷ 0.06

_____

12 6.36 ÷ 0.06

_____

13 36.36 ÷ 0.06

_____

14 9 ÷ 2.25

_____

15 13.5 ÷ 2.25

_____

16 Describe a pattern you noticed when you were completing the problem set.

Adding Fractions with Unlike Denominators

Name: _____

Add.

1 $\frac{1}{2} + \frac{1}{4}$

_____

2 $\frac{1}{2} + \frac{3}{8}$

_____

3 $\frac{1}{2} + \frac{1}{3}$

_____

4 $\frac{1}{3} + \frac{1}{4}$

_____

5 $\frac{5}{6} + \frac{1}{12}$

_____

6 $\frac{1}{3} + \frac{2}{5}$

_____

7 $\frac{5}{6} + \frac{2}{3}$

_____

8 $\frac{3}{4} + \frac{5}{6}$

_____

9 $\frac{7}{9} + \frac{1}{6}$

_____

10 $\frac{7}{8} + \frac{2}{3}$

_____

11 $\frac{3}{2} + \frac{3}{5}$

_____

12 $\frac{9}{8} + \frac{5}{6}$

_____

13 What is a different common denominator you could use in problem 2? Describe how you would add the fractions using this different common denominator. Is the result equivalent to the sum found in problem 2?

Adding with Mixed Numbers

Name: _____

Add.

1 $4\frac{7}{8} + \frac{1}{8}$

_____

2 $4\frac{7}{8} + \frac{1}{4}$

_____

3 $4\frac{7}{8} + \frac{1}{2}$

_____

4 $2\frac{3}{4} + \frac{1}{3}$

_____

5 $2\frac{3}{4} + \frac{2}{3}$

_____

6 $2\frac{3}{4} + \frac{5}{6}$

_____

7 $1\frac{2}{5} + 1\frac{1}{2}$

_____

8 $2\frac{4}{5} + 3\frac{1}{2}$

_____

9 $3\frac{2}{3} + 3\frac{2}{5}$

_____

10 $4\frac{5}{8} + 2\frac{2}{3}$

_____

11 $5\frac{3}{4} + 2\frac{3}{5}$

_____

12 $3\frac{5}{6} + 2\frac{7}{8}$

_____

13 What strategy did you use to solve problem 3? Describe each step.

Subtracting Fractions with Unlike Denominators

Name: _____

Subtract.

1 $\frac{1}{2} - \frac{1}{4}$

_____

2 $\frac{1}{2} - \frac{3}{8}$

_____

3 $\frac{1}{2} - \frac{1}{3}$

_____

4 $\frac{1}{3} - \frac{1}{4}$

_____

5 $\frac{5}{6} - \frac{5}{12}$

_____

6 $\frac{3}{4} - \frac{1}{6}$

_____

7 $\frac{7}{8} - \frac{3}{4}$

_____

8 $\frac{1}{2} - \frac{2}{5}$

_____

9 $\frac{3}{4} - \frac{3}{5}$

_____

10 $\frac{2}{3} - \frac{3}{5}$

_____

11 $\frac{5}{6} - \frac{3}{8}$

_____

12 $\frac{7}{8} - \frac{2}{3}$

_____

13 How could you check your work in problem 4? Describe each step.

Subtracting with Mixed Numbers

Name: _____

Subtract.

1 $2\frac{1}{8} - \frac{1}{4}$

_____

2 $2\frac{1}{8} - \frac{1}{2}$

_____

3 $2\frac{1}{8} - \frac{3}{4}$

_____

4 $2\frac{1}{2} - \frac{2}{3}$

_____

5 $2\frac{1}{4} - 1\frac{1}{3}$

_____

6 $3\frac{1}{6} - 1\frac{3}{4}$

_____

7 $7\frac{2}{5} - 3\frac{1}{2}$

_____

8 $5\frac{3}{8} - 4\frac{1}{6}$

_____

9 $8\frac{2}{3} - 3\frac{4}{5}$

_____

10 $6\frac{2}{5} - 3\frac{3}{4}$

_____

11 $9\frac{3}{8} - 3\frac{2}{3}$

_____

12 $14\frac{1}{8} - 9\frac{5}{6}$

_____

13 What pattern did you notice in problems 1 through 3? Explain how this helped you subtract.

Fractions as Division

Name: _____

Solve each problem.

1 Roger has 4 gallons of orange juice. He puts the same amount of juice into each of 5 pitchers. How many gallons of orange juice are in 1 pitcher?

2 Marta has 8 cubic feet of potting soil and 3 flower pots. She wants to put the same amount of soil in each pot. How many cubic feet of soil will she put in each flower pot?

3 Greg made 27 ounces of potato salad to serve to 10 guests at a picnic. If each serving is the same size, how much potato salad will each guest receive?

4 Chandra spends 15 minutes doing 4 math problems. She spends the same amount of time on each problem. How many minutes does she spend on each problem?

5 Taylor has 5 yards of gold ribbon to decorate 8 costumes for the school play. She plans to use the same amount of ribbon for each costume. How many yards of ribbon will she use for each costume?

6 DeShawn is using 7 yards of wire fencing to make a play area for his puppy. He wants to cut the fencing into 6 pieces of equal length. How long will each piece of fencing be?

7 What is a division word problem that can be represented by $\frac{4}{3}$?

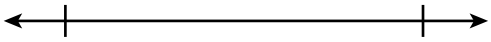
Understanding of Multiplying by a Fraction

Name: _____

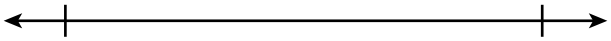
1 Draw a number line model to represent each multiplication problem. Then solve the problem.

$\frac{2}{3} \times \frac{1}{2}$

$\frac{2}{3} \times \frac{1}{2} =$



$\frac{5}{6} \times \frac{3}{4}$



$\frac{5}{6} \times \frac{3}{4} =$

2 Draw an area model to represent each multiplication problem. Then solve the problem.

$\frac{4}{5} \times \frac{2}{3}$

$\frac{4}{5} \times \frac{2}{3} =$

$\frac{3}{4} \times \frac{1}{6}$

$\frac{3}{4} \times \frac{1}{6} =$

3 What type of model do you like best? Explain why.

Multiplying Unit Fractions to Find Area

Name: _____

Each multiplication problem is used to find the area of a rectangle. Write the missing digits in the boxes to make each multiplication problem true.

1 length: $\frac{1}{2}$ unit
width: $\frac{1}{8}$ unit
$\frac{1}{2} \times \frac{1}{8} = \frac{\square}{\square}$ square unit

2 length: $\frac{1}{3}$ unit
width: $\frac{1}{4}$ unit
$\frac{1}{3} \times \frac{1}{4} = \frac{\square}{\square}$ square unit

3 length: $\frac{1}{2}$ unit
width: $\frac{1}{3}$ unit
$\frac{1}{2} \times \frac{1}{3} = \frac{\square}{\square}$ square unit

4 length: $\frac{1}{2}$ unit
width: $\frac{1}{5}$ unit
$\frac{1}{2} \times \frac{1}{5} = \frac{\square}{\square}$ square unit

5 length: $\frac{1}{4}$ unit
width: $\frac{1}{4}$ unit
$\frac{1}{4} \times \frac{1}{4} = \frac{\square}{\square}$

6 length: $\frac{1}{3}$ unit
width: $\frac{1}{8}$ unit
$\frac{1}{3} \times \frac{1}{8} = \frac{\square}{\square}$

7 length: $\frac{1}{2}$ unit
width: $\frac{1}{7}$ unit
$\frac{1}{2} \times \frac{1}{7} = \frac{\square}{\square}$

8 length: $\frac{1}{3}$ unit
width: $\frac{1}{10}$ unit
$\frac{1}{3} \times \frac{1}{10} = \frac{\square}{\square}$ square unit

9 length: $\frac{1}{5}$ unit
width: $\frac{1}{6}$ unit
$\frac{1}{6} \times \frac{1}{5} = \frac{\square}{\square}$ square unit

10 Write missing digits in the boxes to make two different multiplication problems that are both true.

$\frac{1}{\square} \times \frac{1}{4} = \frac{1}{\square}$

$\frac{1}{\square} \times \frac{1}{4} = \frac{1}{\square}$

Tiling a Rectangle to Find Area

Name: _____

Each multiplication problem is used to find the area of a rectangle. Write each product.

1 length: $\frac{1}{2}$ unit
width: $\frac{1}{3}$ unit
$\frac{1}{2} \times \frac{1}{3}$
_____ square unit

2 length: $\frac{2}{3}$ unit
width: $\frac{1}{2}$ unit
$\frac{2}{3} \times \frac{1}{2}$
_____ square unit

3 length: $\frac{3}{2}$ unit
width: $\frac{2}{3}$ unit
$\frac{3}{2} \times \frac{2}{3}$
_____ square unit

4 length: $\frac{1}{3}$ unit
width: $\frac{1}{4}$ unit
$\frac{1}{3} \times \frac{1}{4}$
_____ square unit

5 length: $\frac{3}{4}$ unit
width: $\frac{1}{3}$ unit
$\frac{3}{4} \times \frac{1}{3}$
_____ square unit

6 length: $\frac{5}{3}$ unit
width: $\frac{3}{4}$ unit
$\frac{5}{3} \times \frac{3}{4}$
_____ square unit

7 length: $\frac{3}{5}$ unit
width: $\frac{1}{2}$ unit
$\frac{3}{5} \times \frac{1}{2}$
_____ square unit

8 length: $\frac{3}{2}$ unit
width: $\frac{3}{5}$ unit
$\frac{3}{2} \times \frac{3}{5}$
_____ square unit

9 length: $\frac{3}{2}$ unit
width: $\frac{6}{5}$ unit
$\frac{3}{2} \times \frac{6}{5}$
_____ square unit

10 Describe how you could modify one tiling diagram to solve problems 1 through 3.