



Incoming **Grade 6 Mathematics**

Student At-Home Activity Packet

This At-Home Activity Packet includes 27 sets of practice problems that align to important math concepts your student has worked with so far this year.

We recommend that your student completes one page of practice problems each day.

Encourage your student to do the best they can with this content—the most important thing is that they continue developing their mathematical fluency and skills!

See the Grade 5 Math
concepts covered in
this packet!



Grade 5 Math concepts covered in this packet

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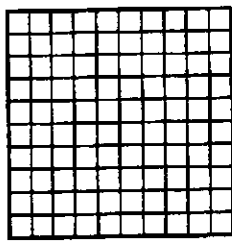
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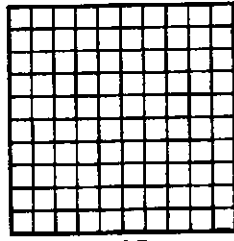
Understanding of Place Value

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.

$$0.5 \div \underline{\hspace{2cm}} = 0.05$$

$$0.05 \times \underline{\hspace{2cm}} = 0.5$$

- 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.

$$0.2 \times \underline{\hspace{2cm}} = 2$$

$$2 \div \underline{\hspace{2cm}} = 0.2$$

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

Understanding Powers of 10

Name: _____

Multiply or divide.

1 $6 \div 10$

2 $0.6 \div 10$

3 $6 \div 10^2$

4 $0.6 \div 10^2$

5 $6 \div 10^3$

6 $60 \div 10^3$

7 0.3×10

8 0.3×10^2

9 0.3×10^3

10 0.03×10^2

11 0.003×10^2

12 0.03×10^3

13 $72 \div 10$

14 0.72×10^2

15 $7,200 \div 10^3$

16 $20 \div 10^2$

17 0.9×10^3

18 0.001×10^2

19 $54 \div 10$

20 $150 \div 10^3$

21 0.46×10^3

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

Reading a Decimal in Word Form

Name: _____

What is the word form of each decimal?

1 0.2

3 0.002

5 0.012

7 1.002

9 90.04

11 500.2

13 700.06

15 3,000.001

2 0.02

4 0.12

6 0.102

8 9.4

10 0.94

12 8.008

14 6.335

16 What strategies did you use to help you read the decimals? Explain.

Writing a Decimal in Standard Form

Name: _____

What decimal represents each number?

1 one and six tenths

2 eight and eleven hundredths

3 $6 \times 1 + 5 \times \frac{1}{10}$

4 thirteen and thirteen thousandths

5 $2 \times 10 + 7 \times \frac{1}{10} + 3 \times \frac{1}{100}$

6 $4 \times 1 + 1 \times \frac{1}{100} + 9 \times \frac{1}{1,000}$

7 five hundred twelve thousandths

8 $8 \times 100 + 2 \times \frac{1}{10} + 8 \times \frac{1}{1,000}$

9 $2 \times 1 + 4 \times \frac{1}{100}$

10 forty-two and forty-one hundredths

11 $7 \times 100 + 2 \times 10 + 3 \times 1 + 6 \times \frac{1}{10}$

12 twelve and sixty-eight thousandths

13 $3 \times 1,000 + 6 \times 100 + 3 \times 10 + 7 \times \frac{1}{10} + 2 \times \frac{1}{100} + 8 \times \frac{1}{1,000}$

14 nine hundred fifty-six and four hundred twenty-seven thousandths

15 How was writing decimals for numbers in word form different from numbers in expanded form?

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.

$$\begin{array}{r} 1 \quad 132 \\ \times 34 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 247 \\ \times 15 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 145 \\ \times 23 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 308 \\ \times 12 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 158 \\ \times 41 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 364 \\ \times 32 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \quad 400 \\ \times 29 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \quad 254 \\ \times 17 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \quad 187 \\ \times 42 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \quad 216 \\ \times 12 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \quad 323 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \quad 194 \\ \times 26 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \quad 317 \\ \times 14 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \quad 385 \\ \times 31 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \quad 285 \\ \times 27 \\ \hline \end{array}$$

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.

$$\begin{array}{r} 1 \quad 580 \\ \times 30 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 3,104 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 1,482 \\ \times 38 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 1,085 \\ \times 17 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 1,236 \\ \times 55 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 1,625 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \quad 2,105 \\ \times 13 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \quad 1,788 \\ \times 15 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \quad 2,500 \\ \times 19 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \quad 648 \\ \times 32 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \quad 2,409 \\ \times 23 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \quad 306 \\ \times 62 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \quad 2,417 \\ \times 24 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \quad 650 \\ \times 35 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \quad 962 \\ \times 44 \\ \hline \end{array}$$

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

Using Estimation and Area Models to Divide

Name: _____

Check each answer by multiplying the divisor by the quotient. If the answer is incorrect, cross out the answer and write the correct answer.

Division Problems	Student Answers
$516 \div 12$	48 43 Check: $12 \times 48 = 576$
$837 \div 31$	27
$351 \div 13$	57
$918 \div 54$	22
$896 \div 32$	23
$1,482 \div 78$	14
$1,012 \div 11$	82
$1,344 \div 56$	24

- 1 Explain how you could know that the answers to two of the problems are incorrect without multiplying.

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.

Using Estimation with Decimals *continued*

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

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.

Estimating in Word Problems with Fractions

Name: _____

Solve the problems. Estimate to tell if your solution is reasonable. Show your work.

- 1** Jim mails one package that weighs $\frac{3}{8}$ pound and another that weighs $\frac{2}{3}$ pound. What is the total weight of both packages?

- 2** Rosa needs $5\frac{1}{4}$ yards of ribbon for a crafts project. She already has $2\frac{7}{8}$ yards of ribbon. How many more yards of ribbon does she need to buy?

- 3** To make fruit punch, Tyrone needs $3\frac{3}{8}$ quarts of orange juice and $3\frac{3}{4}$ quarts of cranberry juice. How many quarts of juice does he need in all?

Estimating in Word Problems with Fractions *continued*

Name: _____

- 4 Lin spent $\frac{5}{6}$ hour on math homework and $1\frac{3}{4}$ hours on science homework. How many hours in all did she spend on homework for both subjects?
- 5 Sandra rode her bike $9\frac{1}{3}$ miles on Monday and $6\frac{4}{5}$ miles on Tuesday. How many more miles did she ride on Monday than on Tuesday?
- 6 How can you make a high estimate for the sum of two fractions in a word problem?

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 $\frac{4}{3}$?

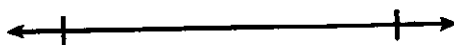
Understanding of Multiplying by a Fraction

Name: _____

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

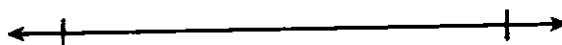
$$\frac{2}{3} \times \frac{1}{2}$$

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



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

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



- 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.