Student Name: _____ **Homeroom:** _____

5th Grade Math
Distance Learning Packet
Week 4

Directions:

Daily Directions

- Read directions for the topic and work through the examples.
- 5ÓÅ ÔÈÅ ×ÏÒËÓÐÁÃÅ ÁÔ ÔÈÅ ÂÁÃË ÏÆ ÔÈÅ ÐÁÃËÅÔ ÔÏ ÃÏ Í ÐÌÅÔÅ problems for each section. You can workspace separate the sheets from the packet. For sections with enough space on the page, there is no extra workspace at the back of the packet.
- Students should complete approximately ρ-2 ÓÅÃÔÉÏÎs ÐÅÒ ÄÁÙ (approximately 20-30 problems)

Contact Information:

Teacher Contact Information

School Contact Information

4.8 Division of Decimals by Whole Numbers (DOK 2)

Example: 52.26 ÷ 6

Step 1: Copy the problem as you would for whole numbers. Copy the decimal point directly above the division symbol in the place for the answer.

$$6\overline{)52.26}$$

Step 2: Divide the same way as you would with whole numbers.

$$\begin{array}{r} 8.71 \\ 6\overline{)52.26} \\ \underline{48} \\ 42 \\ \underline{-42} \\ 6 \\ \underline{-6} \\ 0 \end{array}$$

Divide. Remember to copy the decimal point directly above the place for the answer. (DOK 2)

1. 42.75 ÷ 3 _____
2. 74.16 ÷ 6 _____
3. 81.50 ÷ 25 _____
4. 82.46 ÷ 14 _____
5. 12.50 ÷ 2 _____
6. 224.64 ÷ 52 _____
7. 183.04 ÷ 52 _____
8. 281.52 ÷ 23 _____
9. 72.36 ÷ 4 _____
10. 379.5 ÷ 15 _____
11. 152.25 ÷ 21 _____
12. 40.375 ÷ 19 _____
13. 102.5 ÷ 5 _____
14. 113.4 ÷ 9 _____
15. 585.14 ÷ 34 _____
16. 93.6 ÷ 24 _____

4.9 Division of Decimals by Decimals (DOK 2)

Example: 374.5 ÷ 0.07

Step 1: Copy the problem as you would for whole numbers.

Divisor

0.07 ⟌374.5 ←—Dividend

Step 2: You cannot divide by a decimal number. You must move the decimal point in the divisor 2 places to the right to make it a whole number. The decimal point in the dividend must also move to the right the same number of places. Notice that in this example, you must add a 0 to the dividend.

0.07. ⟌374.50.
→ →

Step 3: The problem now becomes 37,450 ÷ 7. Copy the decimal point from the dividend straight above in the place for the answer.

```
        5 3 5 0 .
7 ⟌ 3 7 4 5 0 .
  − 3 5
      2 4
    − 2 1
        3 5
      − 3 5
          0 0
```

Divide. Remember to move the decimal points. (DOK 2)

1. 0.676 ÷ 0.013 _____
2. 0.32 ÷ 0.08 _____
3. 54.60 ÷ 0.84 _____
4. 10.35 ÷ 0.45 _____
5. 18.46 ÷ 1.3 _____
6. 14.6 ÷ 0.002 _____
7. 125.25 ÷ 0.75 _____
8. 33.00 ÷ 1.65 _____
9. 154.08 ÷ 1.8 _____
10. 0.4374 ÷ 0.003 _____
11. 292.9 ÷ 0.29 _____
12. 6.375 ÷ 0.3 _____
13. 4.8 ÷ 0.08 _____
14. 1.2 ÷ 0.024 _____
15. 15.725 ÷ 3.7 _____
16. 167.50 ÷ 0.25 _____

Chapter 5
Adding and Subtracting Fractions

Standard(s) covered: 5.NF.A.1, 5.NF.A.2, LEAP.I.5.2, LEAP.II.5.6, LEAP. II.5.7, LEAP.II.5.8, LEAP.III.5.2

5.1 Fractions (DOK 1)

Fractions are numbers used to express part of a total.

Fractions are expressed as part(s) over the total. $\frac{\textbf{Part}}{\textbf{Total}}$

Example: Sara's mother cuts a pie into 5 equal pieces. How much of the pie is one slice?

Step 1: Determine the number of parts. The part is 1 piece of pie.
The total is 5 pieces of pie.

Answer: $\frac{\text{Part}}{\text{Total}} = \frac{1}{5}$ One slice of the pie is $\frac{1}{5}$ of the pie.

The names of the two parts of a fraction are **numerator** for the part on top and **denominator** for the total on the bottom.

$$\frac{\text{Numerator}}{\text{Denominator}} = \frac{\text{Part(s)}}{\text{Total}} = \frac{1}{5}$$

An easy way to remember the names of numerator and denominator is: denominator starts with the letter "d", and so does the word "down." The denominator is down from the numerator.

If the numerators are all equal, and the denominators are different in a group of fractions, then the larger the denominator, the smaller the fraction. Look at the list of fractions below.

$$\frac{1}{2}\ \frac{1}{3}\ \frac{1}{4}\ \frac{1}{5}\ \frac{1}{6}\ \frac{1}{8}$$

Think of a pie. If the pie is cut into two pieces, each piece is $\frac{1}{2}$ of a pie. That's a big piece of pie! If the pie is cut into eight pieces, each piece is $\frac{1}{8}$ of a pie. That's a much smaller piece of pie than $\frac{1}{2}$ of a pie.

5.2 Simplifying Fractions (DOK 1)

Example 1: Simplify $\frac{4}{8}$ to lowest terms.

Step 1: First, you need to find the **greatest common factor** of 4 and 8. Think: What is the largest number that can be divided into 4 and 8 without a remainder?

These must be the same number. $?\overline{)4}$ $?\overline{)8}$ 4 and 8 can both be divided by 4.

Step 2: Divide the top (numerator) and bottom (denominator) of the fraction by the same number.

$\frac{4:4}{8:4}$ $\frac{1}{2}$ Therefore, $\frac{4}{8}=\frac{1}{2}$.

If there is a whole number with the fraction, be certain to bring the whole number forward with the simplified fraction.

Examples: $\frac{3}{6}$ simplified is $\frac{1}{2}$ $15\frac{7}{21}$ simplified is $15\frac{1}{3}$ $347\frac{9}{15}$ simplified is $347\frac{3}{5}$

Simplify the following. (DOK 1)

1. $\frac{2}{8}$ _____
2. $\frac{12}{15}$ _____
3. $\frac{9}{27}$ _____
4. $\frac{12}{42}$ _____
5. $\frac{3}{21}$ _____
6. $\frac{27}{54}$ _____
7. $\frac{14}{22}$ _____
8. $\frac{9}{21}$ _____
9. $\frac{4}{14}$ _____
10. $\frac{6}{26}$ _____
11. $\frac{30}{45}$ _____
12. $\frac{16}{64}$ _____
13. $\frac{10}{25}$ _____
14. $\frac{3}{12}$ _____
15. $\frac{15}{30}$ _____
16. $\frac{12}{36}$ _____
17. $\frac{13}{39}$ _____
18. $\frac{28}{49}$ _____
19. $\frac{8}{18}$ _____
20. $\frac{14}{21}$ _____
21. $1\frac{2}{12}$ _____
22. $3\frac{5}{15}$ _____
23. $4\frac{9}{15}$ _____
24. $7\frac{24}{48}$ _____
25. $8\frac{3}{18}$ _____
26. $9\frac{6}{27}$ _____
27. $15\frac{4}{18}$ _____
28. $8\frac{8}{28}$ _____

5.3 Simplifying Improper Fractions (DOK 1, 2)

Example 1: Simplify $\frac{21}{4}$.

Step 1: $\frac{21}{4}$ 21 : 4 5 R 1

The quotient, 5, becomes the whole number portion of the mixed number.

Step 2: The remainder, 1, becomes the numerator of the fraction, in the mixed number.

$\frac{21}{4} = 5\frac{1}{4}$ ← remainder

The denominator (bottom number) of the fraction always remains the same.

Example 2: Simplify $\frac{11}{6}$.

Step 1: $\frac{11}{6}$ is the same as $11 \div 6$. $11 \div 6 = 1$ R 5.

Step 2: Rewrite as a mixed number: $1\frac{5}{6}$.

Simplify the following improper fractions. (DOK 1)

1. $\frac{13}{5} =$ _____
2. $\frac{11}{3} =$ _____
3. $\frac{24}{6} =$ _____
4. $\frac{7}{6} =$ _____
5. $\frac{19}{6} =$ _____
6. $\frac{16}{5} =$ _____
7. $\frac{13}{8} =$ _____
8. $\frac{9}{5} =$ _____
9. $\frac{22}{3} =$ _____
10. $\frac{13}{4} =$ _____
11. $\frac{15}{2} =$ _____
12. $\frac{22}{6} =$ _____
13. $\frac{17}{8} =$ _____
14. $\frac{27}{8} =$ _____
15. $\frac{32}{5} =$ _____
16. $\frac{3}{2} =$ _____
17. $\frac{7}{4} =$ _____
18. $\frac{21}{10} =$ _____
19. $\frac{12}{2} =$ _____
20. $\frac{17}{3} =$ _____
21. $\frac{23}{10} =$ _____
22. $\frac{9}{2} =$ _____
23. $\frac{12}{5} =$ _____
24. $\frac{19}{3} =$ _____

Now take what you learned simplifying improper fractions a step further, by adding whole numbers to the fractions.

Example 3: Simplify $8\frac{3}{2}$.

Step 1: Separate the whole number from the improper fraction. $8\frac{3}{2}$ separates to 8 and $\frac{3}{2}$

Step 2: Simplify the improper fraction $\frac{3}{2}$. $\frac{3}{2}$ is the same as $3 \div 2$. $3 \div 2 = 1$ R 1.

Step 3: Rewrite $\frac{3}{2}$ as a whole number with a fraction: $1\frac{1}{2}$.

Step 4: Add $1\frac{1}{2}$ to the whole number 8 from the original problem: $8+1\frac{1}{2}=9\frac{1}{2}$.

Simplify the following improper mixed numbers. (DOK 2)

1. $6\frac{12}{8}$ _____
2. $11\frac{7}{5}$ _____
3. $9\frac{10}{5}$ _____
4. $2\frac{3}{2}$ _____
5. $5\frac{11}{6}$ _____
6. $8\frac{15}{6}$ _____
7. $10\frac{5}{2}$ _____
8. $7\frac{7}{3}$ _____
9. $11\frac{11}{4}$ _____
10. $2\frac{9}{5}$ _____
11. $3\frac{13}{3}$ _____
12. $6\frac{4}{3}$ _____
13. $22\frac{11}{2}$ _____
14. $1\frac{5}{4}$ _____
15. $3\frac{8}{5}$ _____
16. $5\frac{17}{3}$ _____
17. $15\frac{5}{2}$ _____
18. $9\frac{6}{5}$ _____
19. $1\frac{11}{3}$ _____
20. $12\frac{7}{3}$ _____
21. $9\frac{4}{2}$ _____

5.4 Equivalent Fractions (DOK 1, 2)

Any fraction that has the same non-zero numerator (top number) and denominator (bottom number) equals 1.

Example 1: $\frac{5}{5}=1$ $\frac{8}{8}=1$ $\frac{12}{12}=1$ $\frac{15}{15}=1$ $\frac{25}{25}=1$

Any fraction multiplied by 1 in any form remains equal to itself.

Example 2: $\frac{3}{7}\times\frac{4}{4}$ $\frac{12}{28}$ $\frac{3}{7}$

Example 3: Find the missing numerator (top number). $\frac{5}{8}=\frac{\_\_}{24}$

Step 1: Ask yourself, "What was 8 multiplied by to get 24?" 3 is the answer.
Or, ask yourself, "What is 24 ÷ 8?" 3 is the answer.

Step 2: The only way to keep the fraction equal is to multiply the top and bottom numbers by the same number. The bottom number was multiplied by 3, so multiply the top number by 3, as shown below.

$\frac{5}{8}\times\frac{3}{3}=\frac{15}{24}$ Note: $\frac{3}{3}=1$ **Any number divided by itself equals 1.**

Find the missing numerators from the following equivalent fractions. (DOK 1)

1. $\frac{2}{6}=\frac{\_\_}{18}$
2. $\frac{2}{3}=\frac{\_\_}{27}$
3. $\frac{4}{9}=\frac{\_\_}{18}$
4. $\frac{7}{15}=\frac{\_\_}{45}$
5. $\frac{9}{10}=\frac{\_\_}{50}$
6. $\frac{5}{6}=\frac{\_\_}{36}$
7. $\frac{1}{4}=\frac{\_\_}{36}$
8. $\frac{3}{14}=\frac{\_\_}{28}$
9. $\frac{2}{5}=\frac{\_\_}{25}$
10. $\frac{4}{11}=\frac{\_\_}{33}$
11. $\frac{5}{6}=\frac{\_\_}{18}$
12. $\frac{6}{11}=\frac{\_\_}{22}$
13. $\frac{8}{15}=\frac{\_\_}{45}$
14. $\frac{1}{9}=\frac{\_\_}{18}$
15. $\frac{7}{8}=\frac{\_\_}{40}$
16. $\frac{1}{12}=\frac{\_\_}{48}$
17. $\frac{3}{8}=\frac{\_\_}{24}$
18. $\frac{3}{4}=\frac{\_\_}{16}$
19. $\frac{2}{7}=\frac{\_\_}{49}$
20. $\frac{11}{12}=\frac{\_\_}{24}$
21. $1\frac{2}{5}=1\frac{\_\_}{45}$
22. $2\frac{4}{5}=2\frac{\_\_}{15}$
23. $8\frac{1}{8}=8\frac{\_\_}{56}$
24. $3\frac{3}{8}=3\frac{\_\_}{56}$
25. $11\frac{2}{13}=11\frac{\_\_}{26}$
26. $7\frac{1}{7}=7\frac{\_\_}{35}$
27. $2\frac{4}{5}=2\frac{\_\_}{10}$
28. $1\frac{3}{10}=1\frac{\_\_}{40}$

5.6 Adding and Subtracting Fractions (DOK 2)

Example: Add $\frac{1}{2}+\frac{2}{3}$

Step 1: Rewrite the problem vertically, and find the lowest common denominator. This is the same as finding the lowest common multiple. The lowest common denominator for 2 and 3 is 6.

$$\begin{array}{r} \frac{1}{2}=\frac{\ }{6} \\ +\frac{2}{3}=\frac{\ }{6} \\ \hline \end{array}$$

Step 2: Find the missing numerators by dividing the denominator, 6, by the original denominators, then multiply the original numerals by that number.

$$\begin{array}{r} \frac{1}{2}=\frac{\ }{6} \\ +\frac{2}{3}=\frac{\ }{6} \\ \hline \end{array} \qquad \begin{array}{r} \text{Then: } 1\times 3=3 \\ \text{First: } 6\div 2=\nwarrow 3 \\ \text{Then: } 2\times 2=4 \\ \text{First: } 6\div 3=\nwarrow 2 \\ \hline \end{array} \qquad \begin{array}{r} \frac{3}{6} \\ +\frac{4}{6} \\ \hline \end{array}$$

Answer: $\frac{7}{6}$

Add and simplify. Answers may include a whole number with a fraction. (DOK 2)

1. $\begin{array}{r} \frac{5}{9} \\ +\frac{2}{3} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{1}{4} \\ +\frac{2}{5} \\ \hline \end{array}$

3. $\begin{array}{r} \frac{3}{4} \\ +\frac{3}{5} \\ \hline \end{array}$

4. $\begin{array}{r} \frac{1}{4} \\ +\frac{7}{8} \\ \hline \end{array}$

5. $\begin{array}{r} \frac{5}{6} \\ +\frac{1}{3} \\ \hline \end{array}$

6. $\begin{array}{r} \frac{1}{5} \\ +\frac{5}{6} \\ \hline \end{array}$

7. $\begin{array}{r} \frac{1}{3} \\ +\frac{3}{4} \\ \hline \end{array}$

8. $\begin{array}{r} \frac{4}{9} \\ +\frac{2}{3} \\ \hline \end{array}$

9. $\begin{array}{r} \frac{7}{10} \\ +\frac{2}{3} \\ \hline \end{array}$

10. $\begin{array}{r} \frac{2}{7} \\ +\frac{1}{2} \\ \hline \end{array}$

11. $\begin{array}{r} \frac{3}{11} \\ +\frac{3}{4} \\ \hline \end{array}$

12. $\begin{array}{r} \frac{3}{5} \\ +\frac{4}{9} \\ \hline \end{array}$

13. $\begin{array}{r} \frac{5}{8} \\ +\frac{2}{3} \\ \hline \end{array}$

14. $\begin{array}{r} \frac{4}{7} \\ +\frac{1}{8} \\ \hline \end{array}$

15. $\begin{array}{r} \frac{1}{3} \\ +\frac{7}{8} \\ \hline \end{array}$

16. $\begin{array}{r} \frac{3}{4} \\ +\frac{5}{12} \\ \hline \end{array}$

17. $\begin{array}{r} \frac{1}{2} \\ +\frac{2}{3} \\ \hline \end{array}$

18. $\begin{array}{r} \frac{1}{2} \\ +\frac{7}{8} \\ \hline \end{array}$

19. $\begin{array}{r} \frac{2}{3} \\ +\frac{3}{8} \\ \hline \end{array}$

20. $\begin{array}{r} \frac{7}{8} \\ +\frac{4}{5} \\ \hline \end{array}$

21. $\begin{array}{r} \frac{7}{12} \\ +\frac{2}{3} \\ \hline \end{array}$

4.8 Division of Decimals by Whole Numbers workspace **Name: _____**

Homeroom: _____

1.	**2.**
3.	**4.**
5.	**6.**
7.	**8.**

4.8 Division of Decimals by Whole Numbers workspace (Page 2) **Name: _____**

Homeroom: _____

9.	**10.**
11.	**12.**
13.	**14.**
15.	**16.**

4.9 Division of Decimals by Decimals workspace

Name: _____

Homeroom: _____

1.	**2.**
3.	**4.**
5.	**6.**
7.	**8.**

4.8 Division of Decimals by Decimals workspace(Page 2) **Name: _____**

Homeroom: _____

9.	**10.**
11.	**12.**
13.	**14.**
15.	**16.**

5.2 Simplifying Fractions workspace

Name: _____

Homeroom: _____

1.	**2.**	**3.**
4.	**5.**	**6.**
7.	**8.**	**9.**
10.	**11.**	**12.**
13.	**14.**	**15.**

5.2 Simplifying Fractions workspace (Page 2)

Name: _____

Homeroom: _____

16.	**17.**	**18.**
19.	**20.**	**21.**
22.	**23.**	**24.**
25.	**26.**	**28**

5.2 Simplifying Improper Fractions workspace

Name: _____

Homeroom: _____

1.	**2.**	**3.**	**4.**
5.	**6.**	**7.**	**8.**
9.	**10.**	**11.**	**12.**
13.	**14.**	**15.**	**16.**
17.	**18.**	**19.**	**20.**
21.	**22.**	**23.**	**24.**

5.2 Simplifying Improper Fractions workspace (Page 2) **Name: _____**

Homeroom: _____

1.	**2.**	**3.**
4.	**5.**	**6.**
7.	**8.**	**9.**
10.	**11.**	**12.**
13.	**14.**	**15.**
16.	**17.**	**18.**
19.	**20.**	**21.**

5.6 Adding and Subtracting Fractions workspace

Name: _____

Homeroom: _____

1.	**2.**	**3.**
4.	**5.**	**6.**
7.	**8.**	**9.**
10.	**11.**	**12.**

5.6 Adding and Subtracting Fractions workspace (Page 2)

Name: _____

Homeroom: _____

13.	**14.**	**15.**
16.	**17.**	**18.**
19.	**20.**	**21.**