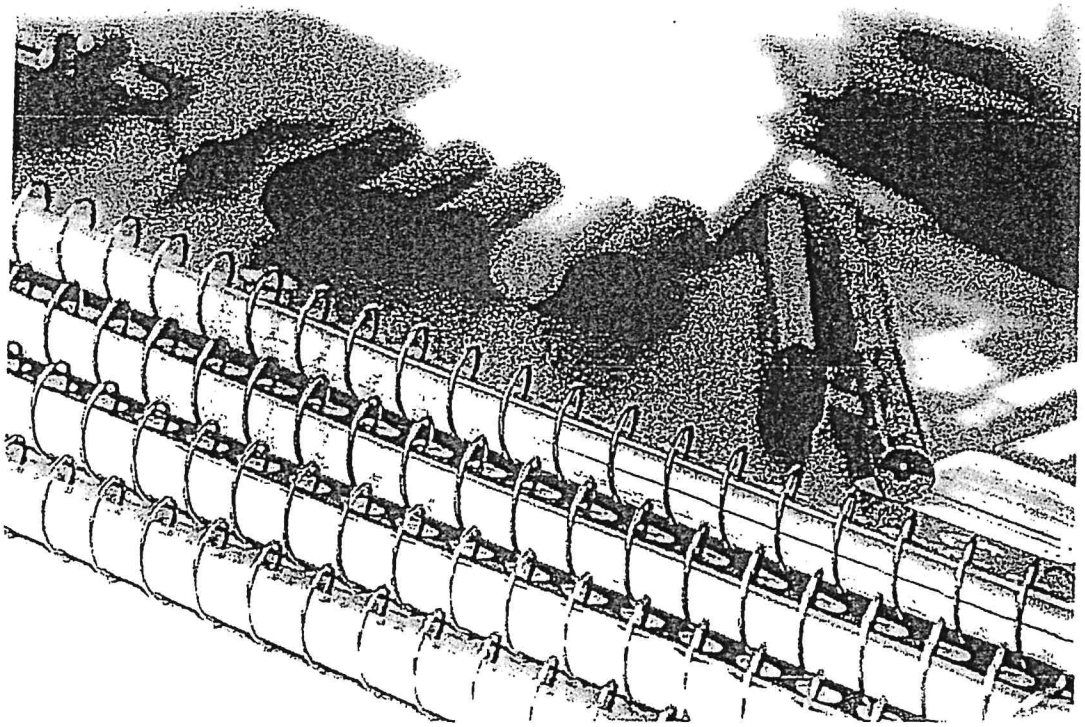
Summer Math for SCS
Grade 7



Please complete this entire Math packet and bring it with you on the first day of seventh grade math. It counts as your first test grade. This assignment contains many different types of Math concepts. Try your best!

ALSO, MAKE SURE YOU SHOW ALL OF YOUR WORK ON LOOSE LEAF AND PLACE YOUR ANSWERS ON THE LINES PROVIDED ON EACH WORKSHEET.

2023

Name _____ Date _____ Class _____

CHAPTER 4 **Family Letter**

Understanding Fractions

Write each decimal as a fraction or a mixed number.

1. 0.37 _____
2. 0.09 _____
3. 6.11 _____
4. 1.2 _____

Write each fraction or mixed number as a decimal.

5. $3\frac{2}{5}$ _____
6. $\frac{3}{8}$ _____
7. $4\frac{1}{9}$ _____
8. $\frac{7}{12}$ _____

Order the fractions and decimals from least to greatest.

9. 0.38, $\frac{1}{3}$, $\frac{3}{10}$ _____
10. $\frac{8}{15}$, $\frac{1}{2}$, 0.75 _____

Find two equivalent fractions for each given fraction.

11. $\frac{12}{16}$ _____
12. $\frac{11}{22}$ _____
13. $\frac{5}{9}$ _____
14. $\frac{14}{21}$ _____

Find the missing number that makes the fractions equivalent.

15. $\frac{4}{5} = \frac{?}{20}$ _____
16. $\frac{9}{12} = \frac{3}{?}$ _____
17. $\frac{9}{10} = \frac{36}{?}$ _____

Write each fraction in simplest form.

18. $\frac{6}{18}$ _____
19. $\frac{12}{15}$ _____
20. $\frac{25}{40}$ _____

Compare. Write <, >, or =.

21. $\frac{3}{5} \square \frac{4}{5}$
22. $\frac{11}{15} \square \frac{2}{3}$
23. $\frac{9}{33} \square \frac{3}{11}$

24. Harry needs $3\frac{3}{8}$ feet of wood to make a birdhouse. Write $3\frac{3}{8}$ as an improper fraction. _____

Name _____ Date _____ Class _____

CHAPTER 5

Family Letter

Multiplying and Dividing Fractions

Multiply. Write the answer in simplest form.

1. $\frac{1}{2} \cdot \frac{3}{5}$ _____
2. $\frac{1}{4} \cdot \frac{6}{7}$ _____
3. $\frac{5}{9} \cdot \frac{3}{10}$ _____
4. $\frac{2}{3} \cdot \frac{3}{8}$ _____

Evaluate the expression $x \cdot \frac{1}{3}$ for each value of x.

5. $x = \frac{3}{8}$ _____
6. $x = \frac{9}{10}$ _____
7. $x = \frac{6}{11}$ _____

Multiply. Write the answer in simplest form.

8. $3\frac{1}{4} \cdot \frac{1}{8}$ _____
9. $5 \cdot 2\frac{1}{5}$ _____
10. $2\frac{1}{3} \cdot 3\frac{1}{2}$ _____

Find the reciprocal.

11. $\frac{6}{9}$ _____
12. $\frac{7}{11}$ _____
13. $\frac{6}{7}$ _____
14. $\frac{1}{2}$ _____

Divide. Write the answer in simplest form.

15. $\frac{7}{9} \div 3$ _____
16. $\frac{4}{7} \div \frac{5}{7}$ _____
17. $3\frac{1}{2} \div 1\frac{7}{8}$ _____
18. $\frac{8}{15} \div 2\frac{3}{5}$ _____

Solve each equation. Write the answer in simplest form.

19. $5x = \frac{2}{3}$ _____
20. $\frac{2}{5}x = 18$ _____
21. $\frac{8x}{9} = 16$ _____

Name _____ Date _____ Class _____

CHAPTER 5 **Family Letter**

Adding and Subtracting Fractions

Find the least common multiple (LCM).

1. 4, 16 _____

2. 3, 8 _____

3. 2, 3, and 5 _____

4. 5, 10, and 12 _____

Find each sum or difference by rounding to 0, $\frac{1}{2}$, or 1.

5. $\frac{3}{4} + \frac{3}{8}$ _____

6. $\frac{7}{11} - \frac{2}{5}$ _____

7. $\frac{4}{15} + \frac{7}{20}$ _____

Add or subtract. Write each answer in simplest form.

8. $\frac{6}{7} + \frac{1}{2}$ _____

9. $\frac{5}{9} - \frac{1}{3}$ _____

10. $\frac{3}{8} + \frac{5}{12}$ _____

11. $6\frac{3}{5} + 5\frac{1}{4}$ _____

12. $5\frac{1}{9} + 8\frac{1}{3}$ _____

13. $10\frac{6}{8} - 2\frac{1}{4}$ _____

Find each sum or difference. Write the answer in simplest form.

14. $7 - 5\frac{3}{4}$ _____

15. $6\frac{3}{5} + 4\frac{2}{3}$ _____

16. $15\frac{1}{8} - 7\frac{5}{6}$ _____

Solve each equation. Write the solution in simplest form.

17. $y - 6\frac{1}{6} = 7\frac{1}{2}$ _____

18. $x + 2\frac{4}{7} = 3\frac{1}{14}$ _____

19. $3\frac{3}{8} = a - 8\frac{10}{16}$ _____

Name _____ Date _____ Class _____

CHAPTER 6

Family Letter

Organizing Data

1. Ms. Fike has been teaching for five years. Her first year, she had 22 students. Her second year, she had 25 students. Her third year, she had 28 students. Her fourth year, she had 31 students. Her fifth year, she had 34 students. Use this data to make a table.

2. Use your table from Exercise 1 to find a pattern in the data and draw a conclusion.

_____

_____

Find the range, mean, median, and mode of each data set.

Price of computer games	$34	$28	$57	$30	$38	$69	$44	$30	$30

3. Mean

_____

4. Median

_____

5. Mode

_____

6. Range

_____

ATTENDANCE AT SCOTT MIDDLE SCHOOL						
Year	1997	1998	1999	2000	2001	2002
Attendance	180	195	210	192	185	208

7. Mean

_____

8. Median

_____

9. Mode

_____

10. Range

_____

11. Kate sells kitchen tools at a local kitchen store. Her sales for the past week were $856, $1,034, $798, $2,950, and $832. What are the mean, median, and mode of the data? Which one best describes the data set?

_____

NAME _____

Lesson 5.10 Dividing Mixed Numbers

$3\frac{2}{5} \div 4$ Rename $3\frac{2}{5}$ as $\frac{17}{5}$.

$\frac{17}{5} \div \frac{4}{1}$ Rename 4 as $\frac{4}{1}$.

$\frac{17}{5} \times \frac{1}{4} = \frac{17}{20}$ Multiply by the reciprocal.

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

$\frac{13}{3} \div \frac{11}{4}$ Rename.

$\frac{13}{3} \times \frac{4}{11} = \frac{52}{33} = 1\frac{19}{33}$ Multiply by the reciprocal.

Divide. Write answers in simplest form.

	a	b	c	d
1.	$2\frac{1}{2} \div 3\frac{1}{3}$	$1\frac{1}{8} \div 2\frac{1}{4}$	$8 \div 3\frac{1}{2}$	$2\frac{1}{3} \div 5$
2.	$4\frac{1}{2} \div 1\frac{1}{6}$	$4\frac{5}{6} \div 2\frac{2}{5}$	$4\frac{1}{3} \div 6$	$1\frac{1}{2} \div 3\frac{1}{8}$
3.	$6 \div 2\frac{1}{2}$	$1\frac{1}{2} \div 3$	$5 \div 3\frac{3}{4}$	$2\frac{1}{8} \div 3$
4.	$3\frac{3}{5} \div 4$	$3\frac{1}{3} \div 2\frac{3}{8}$	$1 \div 4\frac{1}{3}$	$9 \div 1\frac{2}{3}$

Name _____ Date _____ Class _____

LESSON 4

Decimals

Practice B: Multiplying Decimals

Find each product.

1. $\begin{array}{r} 0.7 \\ \times\ 0.3 \\ \hline \end{array}$ _____

2. $\begin{array}{r} 0.05 \\ \times\ 0.4 \\ \hline \end{array}$ _____

3. $\begin{array}{r} 8.0 \\ \times\ 0.02 \\ \hline \end{array}$ _____

4. $\begin{array}{r} 3.5 \\ \times\ 0.2 \\ \hline \end{array}$ _____

5. $\begin{array}{r} 12.1 \\ \times\ 0.01 \\ \hline \end{array}$ _____

6. $\begin{array}{r} 9.0 \\ \times\ 0.9 \\ \hline \end{array}$ _____

7. $0.04 \cdot 0.58$ _____

8. $2.15 \cdot 1.5$ _____

9. $1.73 \cdot 0.8$ _____

10. $6.017 \cdot 2.0$ _____

11. $3.96 \cdot 0.4$ _____

12. $0.7 \cdot 0.009$ _____

Evaluate $8x$ for each value of x.

13. $x = 0.5$ _____

14. $x = 2.3$ _____

15. $x = 0.74$ _____

16. $x = 3.12$ _____

17. $x = 0.587$ _____

18. $x = 14.08$ _____

19. The average mail carrier walks 4.8 kilometers in a workday. How far do most mail carriers walk in a 6-day week? There are 27 working days in July, so how far will a mail carrier walk in July?

_____

_____

20. A deli charges $3.45 for a pound of turkey. If Tim wants to purchase 2.4 pounds, how much will it cost?

_____

_____

Name _____ Date _____ Class _____

LESSON 6

Decimals

Practice B: Dividing by Decimals

Find each quotient.

1. 9.0 ÷ 0.9 _____
2. 29.6 ÷ 3.7 _____
3. 10.81 ÷ 2.3 _____
4. 10.5 ÷ 1.5 _____
5. 15.36 ÷ 4.8 _____
6. 9.75 ÷ 1.3 _____
7. 20.4 ÷ 5.1 _____
8. 37.5 ÷ 2.5 _____
9. 9.24 ÷ 1.1 _____
10. 16.56 ÷ 6.9 _____
11. 28.9 ÷ 8.5 _____
12. 14.35 ÷ 0.7 _____

Evaluate $x \div 1.2$ for each value of x.

13. $x = 40.8$ _____
14. $x = 1.8$ _____
15. $x = 10.8$ _____
16. $x = 14.4$ _____
17. $x = 4.32$ _____
18. $x = 0.06$ _____

19. Anna is saving $6.35 a week to buy a computer game that costs $57.15. How many weeks will she have to save to buy the game?

_____

20. Ben ran a 19.5-mile race last Saturday. His average speed during the race was 7.8 miles per hour. How long did it take Ben to finish the race?

_____

Name _____ Date _____ Class _____

LESSON 5.5

Introduction to Algebra

Practice B: Addition Equations

Solve each equation. Check your answers.

1. $s + 3 = 23$

2. $v + 10 = 49$

3. $q + 9 = 16$

4. $81 + m = 90$

5. $38 + x = 44$

6. $28 + n = 65$

7. $t + 31 = 50$

8. $25 + p = 39$

9. $19 + v = 24$

Solve each equation. Check your answers.

10. $m + 8 = 17$

11. $r + 14 = 20$

12. $25 + x = 32$

13. $47 + p = 55$

14. $19 + d = 27$

15. $13 + n = 26$

16. $q + 12 = 19$

17. $34 + f = 43$

18. $52 + w = 68$

NOW YOU TRY IT

Use >, <, or = to compare the numbers.

1. $-6 \bigcirc -5$
2. $1 \bigcirc -4$
3. $12 \bigcirc -20$
4. $9 \bigcirc 15$
5. $-8 \bigcirc -12$
6. $-30 \bigcirc 0$
7. $-20 \bigcirc 13$
8. $-16 \bigcirc 16$
9. $18 \bigcirc -18$
10. $40 \bigcirc -100$
11. $-50 \bigcirc 45$
12. $6 \bigcirc -36$
13. $0 \bigcirc -32$
14. $|7| \bigcirc 7$
15. $-3 \bigcirc -8$
16. $|17| \bigcirc 17$
17. $|-17| \bigcirc 17$
18. $-74 \bigcirc 60$

Order each set of integers from least to greatest.

19. $-9, 4, 0$

    _____

20. $-7, -8, -4$

    _____

21. $3, 2, 6, -10$

    _____

22. $10, -20, 30, -30$

    _____

23. $-5, 17, -19, 6$

    _____

24. $3, -3, 10, -10$

    _____

Problem Solving

25. The low temperature on Monday was 5°F, the low temperature on Tuesday was −5°F, and the low temperature on Wednesday was −1°F. On which day did the lowest temperature occur?

    _____

Add the integers.

16. $-7 + 12 =$ _____
17. $35 + (-1) =$ _____
18. $-10 + (-12) =$ _____
19. $-6 + (-5) =$ _____
20. $0 + (-6) =$ _____
21. $50 + (-2) =$ _____
22. $1 + (-7) =$ _____
23. $15 + (-15) =$ _____
24. $2 + (-9) =$ _____
25. $-31 + 3 =$ _____
26. $4 + (-12) =$ _____
27. $-23 + 8 =$ _____
28. $10 + (-15) =$ _____
29. $42 + 16 =$ _____
30. $-1 + (-4) =$ _____

Problem Solving

31. The temperature in Middlefield at 6 A.M. was −15°F. By 3 P.M., the temperature had risen 19°F. What was the temperature at 3 P.M.? _____

32. A diver was 7 m below the surface of the water. The diver then descended 3 m. What integer represents the diver's position after the descent? _____

33. Khalia climbed 33 ft up a mountain and stopped to have lunch. She then descended 17 ft. What integer represents her position on the mountain? _____

Subtract.

4. $-1 - (-15)$ _____
5. $20 - 3$ _____
6. $11 - (-5)$ _____
7. $20 - 2$ _____
8. $-12 - (-12)$ _____
9. $-2 - (-4)$ _____
10. $7 - 13$ _____
11. $3 - 5$ _____
12. $-6 - 11$ _____
13. $9 - 16$ _____
14. $0 - (-7)$ _____
15. $-4 - (-1)$ _____
16. $5 - (-3)$ _____
17. $-9 - 25$ _____
18. $-18 - 10$ _____
19. $-11 - (-8)$ _____
20. $-16 - 9$ _____
21. $10 - (-9)$ _____
22. $-25 - (-40)$ _____
23. $-48 - 0$ _____
24. $-8 - 7$ _____

Problem Solving

25. The elevation of New Orleans, Louisiana, is 8 feet below sea level. The elevation of Lake Champlain, Vermont, is 95 feet above sea level. How much higher is the elevation of Lake Champlain than New Orleans? _____

26. In Fairbanks, Alaska, a typical January temperature is −13°F and a typical April temperature is 30° F. What is the difference between these temperatures? _____

Multiply.

7. $-2 \cdot 4 =$ _____
8. $-5 \cdot 6 =$ _____
9. $4 \cdot (-5) =$ _____
10. $-1 \cdot (-13) =$ _____
11. $2 \cdot (-8) =$ _____
12. $5 \cdot 19 =$ _____
13. $-3 \cdot (-6) =$ _____
14. $7 \cdot (-4) =$ _____
15. $-8 \cdot 11 =$ _____
16. $-6 \cdot 20 =$ _____
17. $-3 \cdot (-12) =$ _____
18. $-4 \cdot 5 =$ _____
19. $-7 \cdot 7 =$ _____
20. $6 \cdot (-10) =$ _____
21. $-8 \cdot (-15) =$ _____
22. $-20 \cdot (-5) =$ _____
23. $8 \cdot (-30) =$ _____
24. $-20 \cdot 20 =$ _____
25. $-7 \cdot (-13) =$ _____
26. $14 \cdot (-5) =$ _____
27. $25 \cdot 3 =$ _____
28. $9 \cdot (-30) =$ _____
29. $-20 \cdot (-30) =$ _____
30. $0 \cdot (-16) =$ _____

Problem Solving

31. There was a temperature change of $-2°F$ each hour over a period of 5 hours. In all, what was the temperature change over the 5-hour period? _____

32. The price of a share of stock increased $3 each week over a 7-week period. What was the total change in the price of a share of the stock over this period of time? _____

33. Justin spends $6 on school lunch each day. If he figures out a budget for a 5-day school week, what number represents the expense of lunch? _____

Divide.

7. $-8 \div (-4) =$ _____
8. $-20 \div 4 =$ _____
9. $-6 \div 2 =$ _____
10. $-12 \div 3 =$ _____
11. $-5 \div 5 =$ _____
12. $-18 \div 3 =$ _____
13. $-45 \div (-5) =$ _____
14. $-4 \div (-1) =$ _____
15. $-48 \div 6 =$ _____
16. $-6 \div (-2) =$ _____
17. $0 \div (-5) =$ _____
18. $12 \div (-6) =$ _____
19. $56 \div 8 =$ _____
20. $-35 \div (-7) =$ _____
21. $48 \div (-8) =$ _____
22. $72 \div (-8) =$ _____
23. $-45 \div (-9) =$ _____
24. $-35 \div 5 =$ _____
25. $-42 \div 7 =$ _____
26. $0 \div 2 =$ _____
27. $-36 \div (-6) =$ _____