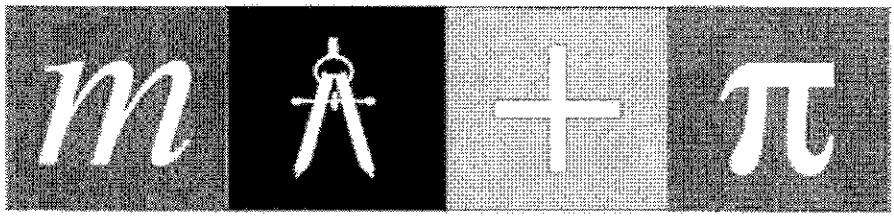
Carusi Middle School

SUMMER



ASSIGNMENT

for students entering

7th Grade

(ITF students must also complete an Introduction to Functions assignment packet)

NO CALCULATOR SHOULD BE USED IN COMPLETION OF THIS PACKET!

Show all work on each page using pencil only. If more room is required, attach lined paper to the packet.

*****Please bring this packet with you the first day of school *****

NAME:_____

Name _____ Class _____ Date _____

Practice 1-4

Adding and Subtracting Decimals

Find each sum or difference.

1. $0.6 + 5.8$ _____
2. $2.1 + 3.4$ _____
3. $3.4 - 0.972$ _____
4. $3.1 - 2.076$ _____
5. $8.13 - 2.716$ _____
6. $5.91 + 2.38$ _____
7. $3.086 + 6.152$ _____
8. $4.7 - 1.9$ _____
9. $9.3 - 3.9$ _____
10. $5.2 - 1.86$ _____
11. $15.98 + 26.37$ _____
12. $9.27 + 15.006$ _____
13. $5.9 - 2.803$ _____
14. $15.7 - 8.923$ _____
15. $4.19 - 2.016$ _____
16. $14.75 - 6.9264$ _____
17. $12 + 0.25 + 4.75$ _____
18. $18.5 + 0.25 + 0.25$ _____
19. $17 + 23 + 10.6$ _____
20. $11.3 + 5.7$ _____
21. $5 + 6.2 + 4.05$ _____
22. $50.6 + 10.4 + 20$ _____
23. $2.1 + 0.6 + 0.3$ _____
24. $14.3 + 16$ _____
25. $4.9 + 0.6 + 4$ _____

Use the table at the right for Exercises 26–28.

26. Find the sum of the decimals given in the chart. What is the meaning of this sum?

_____

_____

27. What part of the hourly work force is aged 25–44?

_____

28. Which three age groups combined represent one-fourth of the hourly work force?

_____

_____

Ages of Workers Earning Hourly Pay

Age of Workers	Part of Work Force
16–19	0.08
20–24	0.15
25–34	0.29
35–44	0.24
45–54	0.14
55–64	0.08
65 & over	0.02

Name _____ Class _____ Date _____

Practice 1-5

Multiplying Decimals

Place the decimal point in each product.

1. $4.3 \times 2.9 = 1247$ _____

2. $0.279 \times 53 = 14787$ _____

3. $4.09 \times 3.96 = 161964$ _____

4. $5.90 \times 6.3 = 3717$ _____

5. $0.74 \times 83 = 6142$ _____

6. $2.06 \times 15.9 = 32754$ _____

Find each product.

7. 43.59×0.1 _____

8. 246×0.01 _____

9. $\begin{array}{r} 5.342 \\ \times \quad 13 \\ \hline \end{array}$ _____

10. $\begin{array}{r} 0.19 \\ \times 0.05 \\ \hline \end{array}$ _____

11. $\begin{array}{r} 240 \\ \times 0.02 \\ \hline \end{array}$ _____

12. $\begin{array}{r} 43.79 \\ \times \quad 42 \\ \hline \end{array}$ _____

Write a multiplication statement you could use for each situation.

13. A pen costs \$.59. How much would a dozen pens cost?

_____

14. A mint costs \$.02. How much would a roll of 10 mints cost?

_____

15. An orange costs \$.09. How much would 2 dozen oranges cost?

_____

Find each product.

16. $19(0.35)$ _____

17. 30×0.1 _____

18. 22.62×1.08 _____

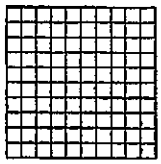
Name _____ Class _____ Date _____

Practice 1-6

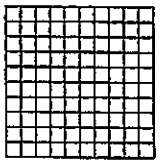
Dividing Decimals

Draw a model to find each quotient.

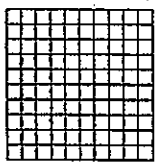
1. $0.4 \div 0.08$ _____



2. $0.8 \div 0.4$ _____



3. $0.9 \div 0.15$ _____



Find each quotient.

4. $1.8 \div 6$

_____

5. $16\overline{)3.2}$

_____

6. $17\overline{)5.1}$

_____

7. $9\overline{)21.6}$

_____

8. $15\overline{)123}$

_____

9. $108 \div 5$

_____

10. $50\overline{)17.5}$

_____

11. $14\overline{)889}$

_____

12. $5\overline{)316}$

_____

Solve.

13. A package of 25 mechanical pencils costs \$5.75. How much does each pencil cost?

_____

14. A sales clerk is placing books side by side on a shelf. She has 12 copies of the same book. If the books cover 27.6 in. of the shelf, how thick is each book?

_____

15. The salt content in the Caspian Sea is 0.13 kg for every liter of water. How many kg of salt are in 70 liters?

_____

Find each quotient.

16. $0.4 \div 0.02$

_____

17. $3.9 \div 0.05$

_____

18. $0.2\overline{)26}$

_____

19. $0.68 \div 0.2$

_____

20. $0.02\overline{)0.06}$

_____

21. $0.09\overline{)0.108}$

_____

Name _____ Class _____ Date _____

Practice 4-1

Multiplying Fractions and Mixed Numbers

Find each product.

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

2. $\frac{2}{5} \times \frac{1}{2}$ _____

Find each product.

3. $\frac{3}{5}$ of 10 _____

4. $\frac{1}{4}$ of 12 _____

5. $\frac{2}{3}$ of 6 _____

6. $\frac{1}{2} \times \frac{5}{6}$ _____

7. $\frac{3}{4} \times \frac{7}{8}$ _____

8. $\frac{2}{5} \times \frac{7}{11}$ _____

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

10. $3\frac{3}{8} \cdot 7\frac{1}{4}$ _____

11. $5\frac{3}{8} \times 2\frac{7}{8}$ _____

12. $2\frac{3}{8} \cdot 4\frac{4}{5}$ _____

13. $6\frac{7}{12} \times 5\frac{9}{10}$ _____

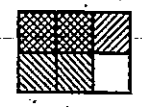
14. $7\frac{1}{3} \times 10\frac{11}{12}$ _____

15. $12\frac{1}{4} \times 3\frac{3}{4}$ _____

16. $8\frac{1}{6} \cdot 2\frac{1}{4}$ _____

17. $15\frac{2}{3} \cdot 5\frac{5}{7}$ _____

18. What product does the model represent?



_____

Solve.

19. A kitten eats $\frac{1}{4}$ cup of cat food. Another cat in the same household eats 6 times as much. How much food does the cat eat?

_____

20. Ken used a piece of lumber to build a bookshelf. If he made three shelves that are each $2\frac{1}{2}$ ft long, how long was the piece of lumber?

_____

Name _____ Class _____ Date _____

Practice 4-3

Dividing Fractions

Write the reciprocal of each number.

1. $\frac{7}{10}$ _____ 2. 4 _____ 3. $\frac{1}{3}$ _____ 4. $\frac{1}{12}$ _____

5. Draw a diagram to show how many $\frac{3}{4}$-foot pieces of string can be cut from a piece of string $4\frac{1}{2}$ feet long.

Find each quotient.

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

9. $\frac{1}{4} \div \frac{1}{4}$ _____ 10. $\frac{7}{8} \div \frac{2}{7}$ _____ 11. $\frac{1}{4} \div \frac{1}{8}$ _____

12. $\frac{1}{2} \div \frac{2}{5}$ _____ 13. $\frac{8}{9} \div \frac{1}{2}$ _____ 14. $3 \div \frac{3}{8}$ _____

Solve.

15. How many $\frac{3}{4}$-cup servings are there in a 6-cup package of rice?

_____

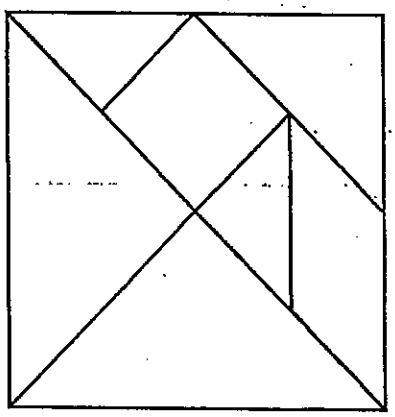
16. George cut 5 oranges into quarters. How many slices of orange did he have?

_____

17. Maureen, Frank, Tashia, Zane, Eric, and Wesley are addressing envelopes for volunteer work at a local charity. They were given $\frac{3}{4}$ of an entire mailing to address to be evenly divided among six of them. What fraction of the entire mailing does each person address?

_____

18. Study the tangram pieces at the right. If the entire square is 1, find the fractional value of each piece. You can copy the tangram and cut the pieces to compare them.



Name _____ Class _____ Date _____

Practice 4-4

Dividing Mixed Numbers

Find each quotient.

1. $\frac{4}{5} \div \frac{7}{8}$ _____

2. $2\frac{4}{7} \div \frac{5}{6}$ _____

3. $12\frac{3}{8} \div 3\frac{3}{4}$ _____

4. $\frac{1}{8} \div \frac{11}{12}$ _____

5. $17\frac{11}{13} \div 2\frac{7}{9}$ _____

6. $51\frac{1}{5} \div 4\frac{9}{10}$ _____

7. $4 \div 1\frac{8}{11}$ _____

8. $21\frac{2}{3} \div \frac{15}{17}$ _____

9. $32\frac{5}{8} \div 2\frac{6}{11}$ _____

Find each quotient.

10. $1\frac{4}{5} \div \frac{1}{3}$ _____

11. $1\frac{2}{3} \div \frac{1}{8}$ _____

12. $3\frac{4}{7} \div 3\frac{1}{2}$ _____

13. $\frac{2}{5} \div 4\frac{3}{5}$ _____

14. $4\frac{1}{8} \div \frac{3}{7}$ _____

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

16. $1\frac{5}{7} \div 1\frac{2}{3}$ _____

17. $\frac{1}{3} \div 2\frac{1}{6}$ _____

18. $1\frac{4}{9} \div \frac{6}{7}$ _____

19. $\frac{1}{2} \div 3\frac{1}{4}$ _____

20. $4\frac{2}{7} \div 1\frac{1}{6}$ _____

21. $\frac{4}{5} \div 3\frac{2}{5}$ _____

22. $\frac{1}{4} \div 1\frac{5}{9}$ _____

23. $1\frac{3}{4} \div \frac{1}{5}$ _____

24. $4\frac{2}{7} \div 1\frac{1}{2}$ _____

25. $1\frac{1}{2} \div 1\frac{2}{3}$ _____

26. $1\frac{5}{8} \div \frac{5}{9}$ _____

27. $1\frac{3}{5} \div \frac{1}{3}$ _____

Anna bought a strip of fabric 10 yards long. She needs a $1\frac{1}{3}$-yard piece to make a pillow.

28. How many pillows can Anna make? _____

29. Anna decides to make smaller pillows using $\frac{2}{3}$-yard pieces. How many small pillows can she make? _____

30. A bulletin board is 56 inches wide and 36 inches high. How many $3\frac{1}{2}$-inch columns can be created? _____

Name _____ Class _____ Date _____

Practice 6-1

Exploring Integers

Use an integer to represent each situation.

1. spent $23 _____
2. lost 12 yards _____
3. deposit of $58 _____

Write the opposite of each integer.

4. 16 _____
5. −12 _____
6. the opposite of the opposite of −7 _____

Find each absolute value.

7. |−5| _____
8. |13| _____
9. |25| _____
10. |−7| _____

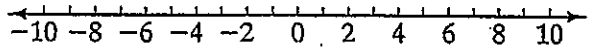
11. The temperature in Fargo, North Dakota, was 6°F at noon. By 4 P.M. the temperature dropped to −10°F. What integer represents the change in temperature?

_____

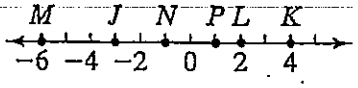
12. A snail climbs 3 inches up a wall. Then it slides 6 inches down the wall. What integer represents the distance the snail traveled from its original position?

_____

13. Graph these integers on the number line: −4, 9, 1, −2, 3.



Write an integer for each point on the number line.



14. J _____
15. K _____
16. L _____
17. M _____

Write two numbers that have the given absolute value.

18. 4 _____
19. 38 _____
20. 260 _____
21. 4,092 _____

Think of the days of a week as integers. Let today be 0, and let days in the past be negative and days in the future be positive.

22. If today is Tuesday, what integer stands for last Sunday? _____
23. If today is Wednesday, what integer stands for next Saturday? _____
24. If today is Friday, what integer stands for last Saturday? _____
25. If today is Monday, what integer stands for next Monday? _____

Name _____ Class _____ Date _____

Practice 6-2

Comparing and Ordering Integers

Compare, using < or >.

1. $2 \square -9$
2. $-5 \square -4$
3. $10 \square -10$
4. $-2 \square 5$
5. $-33 \square 2$
6. $-50 \square -60$
7. $-9 \square 0$
8. $-9 \square -4$

Order each set of integers from least to greatest.

9. $-7, -5, -12, -4$ _____
10. $0, -6, 6, 4, -4$ _____
11. $15, -36, 4, -50$ _____
12. $-3, -12, 9, -27$ _____

13. Order the temperatures from least to greatest. _____
    - The temperature was 25°F below zero.
    - The pool temperature was 78°F.
    - Water freezes at 32°F.
    - The low temperature in December was –3°F.
    - The temperature in the refrigerator was 34°F.

Write an integer that is located on a number line between the given integers.

14. $-2, \_\_\_\_, 9$
15. $3, \_\_\_\_, -12$
16. $-7, \_\_\_\_, -11$
17. $0, \_\_\_\_, -5$
18. $2, \_\_\_\_, -1$
19. $-25, \_\_\_\_, -16$

Complete with an integer that makes the statement true.

20. $-9 > \_\_\_\_$
21. $0 > \_\_\_\_$
22. $-1 > \_\_\_\_$
23. $3 < \_\_\_\_$
24. $-5 < \_\_\_\_$
25. $-50 < \_\_\_\_$

26. During scuba lessons, Sue dove 30 feet, Harriet dove 120 feet, and Kathy dove 90 feet. What integers represent these depths? Order the integers from least to greatest.

_____

Name _____ Class _____ Date _____

Practice 6-4

Comparing and Ordering Rational Numbers

Compare the decimals using <, =, or >.

1. $-7.14 \square -6.19$
2. $-0.65 \square -0.6$
3. $-3.8 \square -4.6$
4. $-12.08 \square -12.8$
5. $-0.72 \square -0.27$
6. $-2.01 \square -2.18$

Compare the fractions using <, =, or >.

7. $-\frac{2}{3} \square -\frac{3}{5}$
8. $-\frac{2}{5} \square -\frac{7}{8}$
9. $-4\frac{3}{8} \square -4\frac{6}{7}$
10. $-1\frac{1}{5} \square -1\frac{5}{8}$
11. $-1\frac{1}{8} \square -1\frac{3}{4}$
12. $-\frac{1}{3} \square -\frac{1}{6}$

Compare the fractions and decimals using <, =, or >.

13. $-\frac{4}{5} \square -0.6$
14. $-3.9 \square -3\frac{4}{5}$
15. $-\frac{1}{2} \square -0.5$
16. $-1.2 \square -1\frac{1}{10}$
17. $-0.75 \square -\frac{8}{10}$
18. $-3.6 \square -3\frac{3}{5}$

19. The city measures the water level in a lake and considers the average depth of the lake to be 0 feet. After Week 1, the water level was -3.1 feet. In Week 2, the water level was $-3\frac{2}{3}$ feet. Compare the numbers. In which week was the water lower?

_____

Order each set of rational numbers from least to greatest.

20. $-4.5, -4\frac{6}{10}, -4.06$ _____

21. $\frac{25}{5}, -5.2, -5\frac{5}{20}$ _____

22. Nicholas researched the elevations of various places around Long Beach, California. He found these elevations.
-5.28 ft, $-5\frac{3}{8}$ ft, -5.6 ft, -7ft, 6.4 ft, $-5\frac{3}{4}$ ft
Order the elevations from least to greatest.

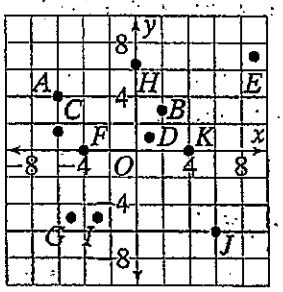
_____

Name _____ Class _____ Date _____

Practice 7-1

Points in the Coordinate Plane

Name the point with the given coordinates in the coordinate plane at the right.

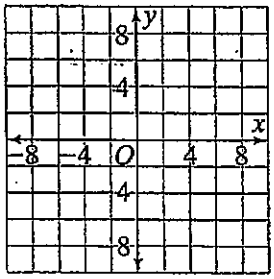


1. $(2, 3)$ _____
2. $(4, 0)$ _____
3. $(-3, -5)$ _____
4. $\left(0, 6\frac{1}{2}\right)$ _____

Find the coordinates of each point at the right.

5. J _____
6. E _____
7. D _____
8. A _____
9. G _____
10. C _____

Graph each point on the coordinate plane at the right.



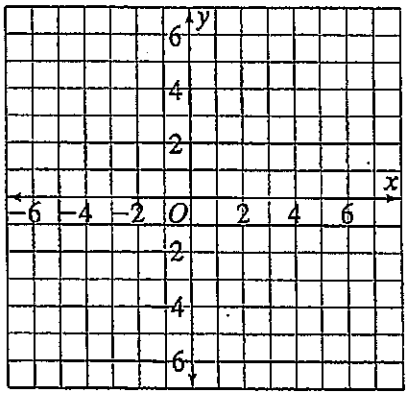
11. $A\,(8.5, -4)$
12. $B\,(-4, 8)$
13. $C\,(4, 8)$
14. $D\,(-8, -4)$
15. $E\left(8, 4\frac{1}{4}\right)$
16. $F\,(-4, -8)$
17. A taxi begins at $(4, -3)$. It travels 3 blocks west and 5 blocks north to pick up a customer. What are the customer's coordinates?

_____

18. A moving truck fills up a shipment at an old address, at $(-2, 1)$. It travels 7 blocks south and 6 blocks east to the new address. What is the location of the new address?

_____

Use the coordinate plane at the right.



19. Graph four points on the coordinate plane so that when the points are connected in order, the shape is a rectangle. List the coordinates of the points.

_____

20. Graph four points on the coordinate plane so that when the points are connected in order, the shape is a parallelogram that is not a rectangle. List the coordinates of the points.

_____

Name _____ Class _____ Date _____

Practice 9-1

Finding the Mean

Find the mean of each data set.

1. 4, 5, 7, 5, 6, 3 _____
2. 72, 76, 73, 74, 75 _____
3. 85, 91, 76, 85, 93 _____
4. 2.1, 3.2, 1.6, 2.4 _____

For each set of data, identify any outliers. Then determine the effect that the outlier has on the mean.

5. 64, 65, 62, 69, 59, 23, 61, 67 _____
6. 8.1, 8.3, 7.8, 7.9, 8.4, 6.8, 8.0 _____
7. 1230, 1225, 1228, 1232, 1233, 1321, 1229, 1231 _____
8. 18.66, 18.75, 18.69, 18.67, 18.99, 18.64, 18.73 _____

Use the table for Exercises 9–11.

Name	Hourly Wage
Julia	$8.75
Ron	7.50
Miguel	25.00
Natasha	11.00
Robert	10.50

9. Whose wage is an outlier in the data set?

_____

10. Find the mean hourly wage with and without the outlier.

_____

11. What effect does the outlier have on the mean?

_____

Fill in the blanks to find the mean of each data set.

12. 4, 6, 2, 8, 5: $\frac{25}{\square} = \square$

13. 10, 4, 2, 12, 6, 8: $\frac{\square}{6} = \square$