

SAMPLE PAGES FOR

SOUTH CAROLINA 4TH GRADE MATHEMATICS

CHALLENGE THE

PALMETTO **A**CHIEVEMENT **C**HALLENGE **T**EST

BY
JANE HEREFORD

TABLE OF CONTENTS

	Diagnostic Test
1	Whole Numbers and Roman Numerals
2	Decimals
3	Money
4	Fractions
5	Estimating
6	Properties
7	Number Lines
8	GCF's and Prime/Composite Numbers
9	Measurements
10	Geometry
11	Area
12	Perimeter
13	3-Dimensional Figures
14	Coordinate Planes, Translations, Reflections, and Rotations
15	Median, Mode, and Range
16	Probability
17	Tables, Graphs, Maps, Thermometers, Calendars and Plots
18	Number Patterns
	Practice Test 1
	Practice Test 2

DECIMALS

Decimals represent part of a whole number. Some decimals are expressed as tenths, hundredths and thousandths.

PLACE VALUE CHART

18	.	3	8	6
<i>Whole number</i>	<i>Decimal point</i>	<i>tenths</i>	<i>hundredths</i>	<i>thousandths</i>

PRACTICE

Write the place value of each underlined digit.

- | | | |
|-----------------------------------|-------------------------------------|------------------------------------|
| 1. 42. <u>8</u> 63 _____ | 7. 204. <u>5</u> _____ | 13. <u>4</u> 51 _____ |
| 2. 5.11 <u>2</u> 3 _____ | 8. 273. <u>8</u> 6 _____ | 14. <u>7</u> 1 <u>3</u> 6 _____ |
| 3. <u>4</u> 912 _____ | 9.154. <u>1</u> 36 <u>7</u> _____ | 15. <u>8</u> 6 <u>1</u> 7 _____ |
| 4. 2. <u>0</u> 6 _____ | 10. 17. <u>8</u> 6 <u>2</u> 3 _____ | 16. 8. <u>7</u> 3 _____ |
| 5. 143. <u>8</u> 8 <u>6</u> _____ | 11. 31. <u>6</u> 4 <u>1</u> 2 _____ | 17. 394. <u>1</u> _____ |
| 6. 80. <u>7</u> 1 _____ | 12. <u>9</u> 1 <u>3</u> 4 _____ | 18. 10.9 <u>3</u> 2 <u>1</u> _____ |

READING DECIMALS

To read decimals, say the whole number, say “and” for the decimal point, say the number to the right of the decimal, and say the place value of the last digit. If there is no whole number, read the number and say the place value of the last digit.

EXAMPLES

- | | |
|-------|------------------------------------------|
| 14.37 | Fourteen and thirty seven hundredths |
| .6 | Six tenths |
| 7.304 | Seven and three hundred four thousandths |

PRACTICE

Write the numbers in words.

1. 100.381

2. .30

3. 45.6

4. 207.89

5. .3

6. 10.13

7. .934

8. 3.31

9. 13.36

10. 5.895

11. 50.73

12. 12.48

13. .06

14. 3.04

15. 800.073

16. 2.1

17. 15.23

18. .184

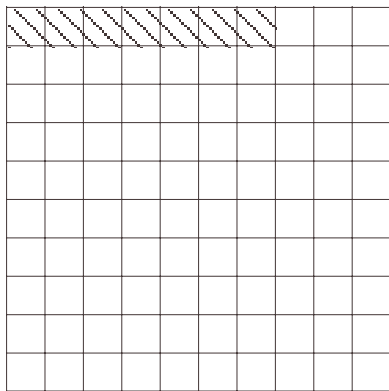
19. .34

20. 312.81

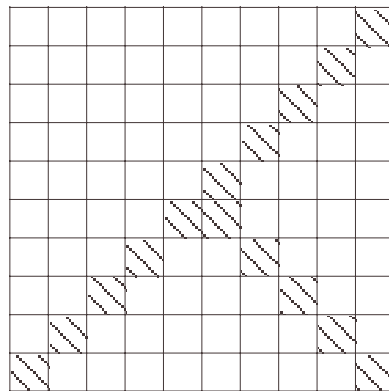
MODELING DECIMALS

Decimals can be modeled by using a grid or other methods.

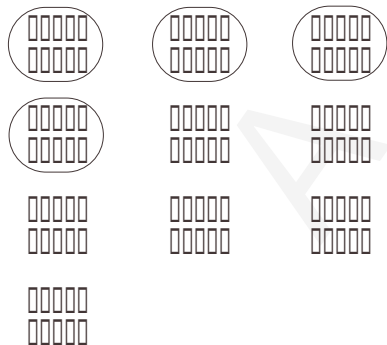
EXAMPLES



= .07 (seven hundredths)



= .15 (fifteen hundredths)



= .4 (four tenths)

PRACTICE

Use grids or another method to model the following decimals.

1. .19

5. .83

2. .2

6. .01

3. .9

7. .3

4. .56

8. .6

ORDERING AND COMPARING

To order and compare decimals, they must have the same number of digits behind the decimal point. Add zeroes when necessary.

EXAMPLES

Put > (greater than), < (less than), or = (equal) in blanks.

$$38 \underline{\quad} 40 \quad 38 \underline{<} 40$$

$$3.62 \underline{\quad} 3.7 \quad 3.62 \underline{<} 3.70$$

Write these numbers in order from largest to smallest.

1.7, 1.62, 1.614, 1.573, 1.6

1.700, **1.620**, 1.614, **1.600**, 1.573

PRACTICE

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

1. $0.14 \underline{\quad} 0.2$

5. $.57 \underline{\quad} .5$

9. $.387 \underline{\quad} .38$

2. $1.675 \underline{\quad} 1.69$

6. $.675 \underline{\quad} .6$

10. $.45 \underline{\quad} .137$

3. $8.92 \underline{\quad} 8.9$

7. $3.5 \underline{\quad} 3.412$

11. $.001 \underline{\quad} .007$

4. $7.51 \underline{\quad} 7.51$

8. $50.86 \underline{\quad} 50.860$

12. $8.7 \underline{\quad} 8.72$

Order the following numbers from smallest to largest.

13. 3.5, 3.45, 3.124, 3.455, 3.51

14. 2.9, 2.876, 2.93, 2.84, 2.873

15. 1.63, 1.4, 1.82, 1.9, 1.034

16. .567, .56, .563, .536, .512

17. 28.6, 28.16, 28.543, 28.2, 28.762

18. 10.43, 10.421, 10.563, 10.41, 10.62

19. 24.5, 24.5632, 24.563, 24.51, 24.37

20. 2.56, 3.56, 2.6, 3.451, 2.874

ROUNDING DECIMALS

You can round decimals to *any* place value.

To round to the nearest tenth, hundredth, whole number, etc., you must find the number in that place value first. Second, find the number to the right of that place value number. (0–4 stays the same. 5–9 goes up 1.)

EXAMPLES

Round to the nearest tenth.

$$.864 \rightarrow \underline{.8}64 \rightarrow .9$$

8 is in the tenths place. The 6 is the number to the right of the tenths place. The 6 makes the 8 in the tenths place go up one. Drop the numbers behind the line.

Round to the nearest hundredth.

$$3.8514 \rightarrow 3.85\underline{1}4 \rightarrow 3.85$$

5 is in the hundredths place. The 1 is the number to the right of the hundredths place. The 1 makes the 5 in the hundredths place stay the same. Drop the numbers after the line.

Round to the nearest whole number.

$$3.813 \rightarrow \underline{3}813 \rightarrow 4$$

3 is in the whole numbers place. The 8 is the number to the right of the whole numbers place. The 8 makes the 3 in the whole numbers place go up one. Drop the numbers behind the line.

PRACTICE

Round to the nearest tenth.

1. 3.86 _____

5. 14.77 _____

2. .913 _____

6. 88.99 _____

3. 21.04 _____

7. 10.41 _____

4. .39 _____

8. 231.90 _____

Round to the nearest hundredth.

9. 271.863 _____

13. 9.113 _____

10. 8.999 _____

14. 63.732 _____

11. 624.907 _____

15. 100.171 _____

12. 30.045 _____

16. 81.556 _____

Round to the nearest whole number.

17. .86 _____

21. 177.78 _____

18. 10.17 _____

22. 90.73 _____

19. .90 _____

23. .41 _____

20. 83.34 _____

24. .99 _____

ADDING AND SUBTRACTING DECIMALS

Copy problems with decimal points lined up. Whole numbers (7, 8, 9 . . .) have an imaginary decimal after them. Add zeroes as needed. Add or subtract.

EXAMPLES

$$18.14 + 3.1 + 2.456 =$$
$$\begin{array}{r} 18.140 \\ 3.100 \\ +2.456 \\ \hline 23.696 \end{array}$$

$$2 - 1.645 =$$
$$\begin{array}{r} 2.000 \\ -1.645 \\ \hline 0.355 \end{array}$$

PRACTICE

Add or subtract.

1. $8.874 + 3.7 + 2$

7. $20.145 + 7 + 174.8$

13. $39.7 - 15.186$

2. $21.86 + 40 + 314.6$

8. $28.821 + 305.7 + 8.9$

14. $337.4 - 74.899$

3. $17.12 + 3.345 + 2.5$

9. $3 + 4 + 12.51 + 8.19 + 17.1$

15. $25.67 - 4.8912$

4. $145.9 + 200 + 34.82$

10. $201.93 + 35.8 + 57.17 + 20$

16. $49.31 - 2.8$

5. $5.175 + 36.4 + 3.214$

11. $34 - 8.114$

17. $.77 - .4417$

6. $86.9 + 299.7 + 345.392$

12. $4.001 - 2$

18. $.8 - .3128$

MULTIPLYING DECIMALS

Multiply decimals like whole numbers. After determining the product, place a decimal point in the answer.

EXAMPLES

$$\begin{array}{r} \overset{1}{5.6} \\ \times 3 \\ \hline 16.8 \end{array}$$

$$\begin{array}{r} \overset{2}{1.34} \\ \times \overset{2}{7} \\ \hline 9.38 \end{array}$$

PRACTICE

1. 3.78×2

10. 1.95×2

2. $.38 \times 5$

11. 20.4×3

3. 37.17×4

12. 1.02×5

4. $.58 \times 2$

13. 3.86×5

5. $.4 \times 3$

14. 45.04×3

6. 5.7×4

15. 3.12×4

7. 2.4×9

16. $.07 \times 3$

8. 3.14×8

17. 4.7×6

9. 27.5×4

18. 91.4×8

DIVIDING DECIMALS

Divide decimals like whole numbers. Place the decimal point in your answer above the decimal point in the dividend.

EXAMPLES

$$\begin{array}{r} 2.2 \\ 4 \overline{)8.8} \\ \underline{-8} \\ 08 \\ \underline{-8} \\ 0 \end{array}$$

$$\begin{array}{r} 0.61 \\ 5 \overline{)3.05} \\ \underline{-0} \\ 30 \\ \underline{-30} \\ 05 \\ \underline{-5} \\ 0 \end{array}$$

PRACTICE

1. $4.26 \div 6$

10. $.90 \div 6$

2. $30.3 \div 3$

11. $3.24 \div 4$

3. $24.8 \div 8$

12. $2.18 \div 2$

4. $8.64 \div 4$

13. $9.9 \div 9$

5. $.14 \div 2$

14. $5.25 \div 5$

6. $20.4 \div 4$

15. $.63 \div 3$

7. $8.8 \div 4$

16. $9.3 \div 3$

8. $9.27 \div 3$

17. $21.7 \div 7$

9. $2.17 \div 7$

18. $3.33 \div 3$

REVIEW

1. In the number 293.178, the 8 is in what place?
- tenths
 - hundreds
 - thousandths
 - ones

2. 3.67 is read as _____.
- three point six seven
 - three thousand, sixty-seven
 - three and sixty-seven
 - three and sixty-seven hundredths

3. Which statement is true?
- $2.5 > 2.1 > 1.7$
 - $3.2 > 4.3 > 1.4$
 - $3.1 > 2.9 > 4.2$
 - $9.2 > 8.3 > 9.1$

4. Which team finished first?

Team	Time
A	7.313
B	7.04
C	7.514
D	7.21

- A
- C
- B
- D

5. $3 + 7.16 + 87.6 =$ _____.
- 1,595
 - 95.06
 - 97.76
 - 97.16

6. $57.3 + 18 + 314.16 =$ _____.
- 389.167
 - 389.46
 - 320,007
 - 361.74

7. Round 319.456 to the nearest tenth.
- 319.5
 - 320.556
 - 319.556
 - 319.4

8. $456 - 141.37 =$ _____.
- 597.37
 - 140.914
 - 314.63
 - 13,681

9. Tarra walks 3.2 miles twice a week. How many miles does she walk in three weeks?
- 6.4
 - 36.2
 - 9.6
 - 19.2

10. What is the correct way to write this number?

ones	tenths	tens
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	3	1

- 1.23
- 123
- 321
- 12.3

11. Four of ten glasses have broken edges. How would you write that amount as a decimal?
- .4
 - .04
 - 4.0
 - 10.4
12. Which number represents the smallest quantity?
- 0.56 g
 - 0.5 g
 - 0.6 g
 - 0.61 g
13. Round 8.9341 to the nearest hundredth.
- 8.94
 - 8.934
 - 8.944
 - 8.93
14. Charlie purchases a jacket for \$59.95, a tie for \$15, and a shirt for \$21.99. What is the total cost?
- \$72.19
 - \$71.97
 - \$96.94
 - \$2.96
15. Frankie made purchases totaling \$157.99. Taxes of \$9.48 must be added. She pays \$50 to hold them on layaway. How much does she still owe on her purchases?
- \$217.47
 - \$117.47
 - \$98.51
 - \$198.51
16. A bottle holds 6.19 quarts of soda. What does the place value of "1" mean?
- .1 quarts
 - 1 quart
 - .01 quarts
 - 1.9 quarts
17. Ten hundredths is _____.
- 10
 - .1
 - .10
 - 10.100
18. One board is 15.1 inches wide. Another board is 11.73 inches wide. What is the difference in their widths?
- 26.83 in.
 - 3.37 in.
 - 13.24 in.
 - 132.4 in.
19. A ribbon measures 18.6 inches. Another ribbon measures 27.62 inches. What expression would be used to find how much longer one ribbon is than the other?
- $18.6 + 27.62$
 - $18.6 - 27.62$
 - 18.6×27.62
 - $27.62 - 18.6$

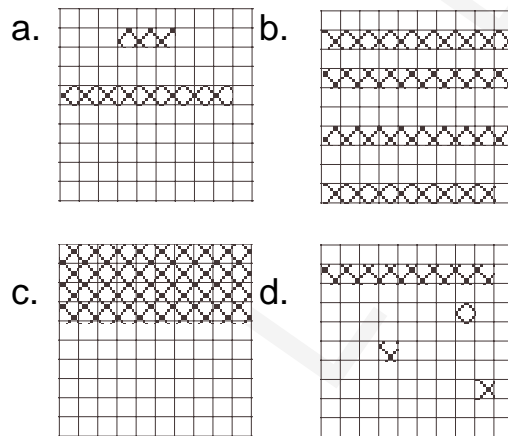
20. Karen has 7 tenths of a dollar and Janet has 31 hundredths of a dollar. Who has more money and by how much?
- Janet has 24¢ more.
 - Karen has 39¢ more.
 - Karen has 70¢ more.
 - Janet has 1¢ more.

21. How would the times be ordered from least to greatest?

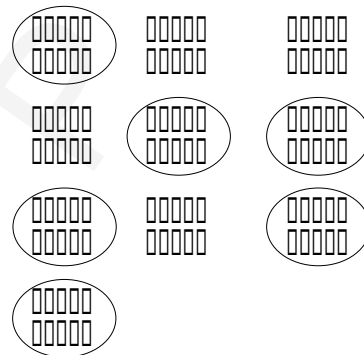
Girls	Time
Susy	7.03
Janet	6.14
Carol	8.41
Maria	7.50
Terry	6.32

- Janet, Terry, Susy, Maria, Carol
 - Terry, Susy, Janet, Maria, Carol
 - Maria, Carol, Terry, Susy, Janet
 - Janet, Maria, Terry, Susy, Carol
22. Each barrel weighs 6.85 pounds. How much would each barrel weigh rounded to the nearest whole number?
- 5 pounds
 - 8 pounds
 - 6 pounds
 - 7 pounds
23. What is 7 tenths of a dollar?
- 70 cents
 - 7 cents
 - 17 cents
 - 75 cents

24. Which grid represents .39?



25. What decimal is represented by this model?



- .7
 - .07
 - .06
 - .6
26. Which decimal is between 0.8 and 0.9?
- 0.73
 - 0.91
 - 0.83
 - 0.13

27. Which runner had the winning time?

Jennifer 1.6 minutes

Greg 1.06 minutes

Rita 1.65 minutes

Jerry 1.05 minutes

- a. Greg
- b. Jerry
- c. Rita
- d. Jennifer

28. Margaret bought 3 blocks that were 3.5 inches in length. What is the total length of the 3 blocks?

- a. 3.8 inches
- b. 6.5 inches
- c. 10.5 inches
- d. 9.5 inches

29. The ribbon is 3.3 feet long. How much ribbon can be used for each ornament if there are three?

- a. 1.1 feet
- b. 3.6 feet
- c. 9.9 feet
- d. 3.0 feet