HARCOURT MATH

GRADE 6

Chapter 4

WHAT WE ARE LEARNING

Decimal Operations

VOCABULARY

Here are some of the vocabulary words we continue to use in class:

Decimal A number that uses place value and a decimal point to show tenths, hundredths, thousandths, and so on

Expression A mathematical phrase that combines operations, numerals, and/or variables to name a number

Name

Date

Dear Family,

In this chapter, your child is adding, subtracting, multiplying, and dividing with decimals and evaluating expressions and equations with decimals.

This is how your child is learning to add and subtract with decimals.

	Add: $5.43 + 7 + 0.588$		Subtract: $41.4 - 7.0388$	
Step 1 Estimate.				
• Round to the nearest whole number.	5.43 7 + 0.588	5 7 + 1	41.4 − 7.0388	41 − 7 34
• Find the estimated answer.		13		
Step 2 Compute.				
• Align the decimal points. • Use zeros as place holders. • Place the decimal point. • Compute.	5.430 7.000 + 0.588 13.018		41.4000 − 7.0388 34.3612	
Step 3 Compare.				
• Compare the answer to your estimate.	13.018 is close to 13.		34.3612 is close to 34.	
• Is your answer reasonable?	The answer is reasonable.		The answer is reasonable.	

This is how your child is learning to multiply with decimals.

	Multiply: 47.85 x 3.6
Step 1 Estimate. • Round to the nearest whole number. • Find the estimated answer.	47.85 → 48 $\times$ 3.6 → $\times$ 4 192
Step 2 Compute. • Multiply as with whole numbers. • Place the decimal point in the product by adding decimal places in the factors or by using the estimated answer.	47.85 (2 places) $\times$ 3.6 (1 place) 28710 143550 172.260 (3 places)
Step 3 Compare. • Compare the answer to your estimate. • Is your answer reasonable?	172.260 is close to 192. The answer is reasonable.

As you work with your child, talk about math to help build confidence and understanding.

Sincerely,

Name _____

PRACTICE/HOMEWORK

Decimal Operations

Add or subtract. Estimate to check.

1. $\begin{array}{r} 4.61 \\ +\ 7.8 \\ \hline \end{array}$

2. $\begin{array}{r} 20.99 \\ -\ 13.05 \\ \hline \end{array}$

3. $\begin{array}{r} 7.9673 \\ -\ 6.8812 \\ \hline \end{array}$

4. $\begin{array}{r} 8.23 \\ 3.94 \\ +\ 11.513 \\ \hline \end{array}$

5. $\begin{array}{r} 13.601 \\ -\ 11.310 \\ \hline \end{array}$

6. $\begin{array}{r} 8 \\ -\ 0.773 \\ \hline \end{array}$

7. $\begin{array}{r} 9 \\ 2.14 \\ +\ 5.36 \\ \hline \end{array}$

8. $\begin{array}{r} 8.05 \\ -\ 1.622 \\ \hline \end{array}$

9. $\begin{array}{r} \$15.45 \\ -\ \$12.25 \\ \hline \end{array}$

10. $\begin{array}{r} 36.04 \\ +\ 12.67 \\ \hline \end{array}$

Tell the number of decimal places there will be in the product.

11. 37.1×7.9 _____

12. 4.08×5.13 _____

13. 2.7×2.07 _____

14. 0.007×3.5 _____

Multiply. Estimate to check.

15. $\begin{array}{r} 2.2 \\ \times\ \ 7 \\ \hline \end{array}$

16. $\begin{array}{r} 2.89 \\ \times\ \ 5 \\ \hline \end{array}$

17. $\begin{array}{r} 10.12 \\ \times\ 35.3 \\ \hline \end{array}$

18. $\begin{array}{r} 4.74 \\ \times\ 3.49 \\ \hline \end{array}$

Rewrite the problem so that the divisor is a whole number.

19. $17.8 \div 0.42$ _____

20. $895 \div 6.23$ _____

21. $30.07 \div 0.67$ _____

Divide. Estimate to check.

22. $6\overline{)18.6}$

23. $0.4\overline{)4.88}$

24. $1.2\overline{)7.44}$

25. $7.3\overline{)33.872}$

Evaluate each expression.

26. $7.5 \times a$ for $a = 19$ _____

27. $7.9 + 8.13 + f$ for $f = 2.4$ _____

Answers: **1.** 12.41; **2.** 7.94; **3.** 1.0861; **4.** 23.683; **5.** 2.291; **6.** 7.227; **7.** 16.5; **8.** 6.428; **9.** $3.20; **10.** 48.71; **11.** 2; **12.** 4; **13.** 3; **14.** 4; **15.** 15.4; **16.** 14.45; **17.** 357.236; **18.** 16.5426; **19.** 1780/42; **20.** 89500/623; **21.** 3007/67; **22.** 3.1; **23.** 12.2; **24.** 6.2; **25.** 4.64; **26.** 142.5; **27.** 18.43

Family Fun

BE SHARP

MATH GAME

Number of players: 2

Materials

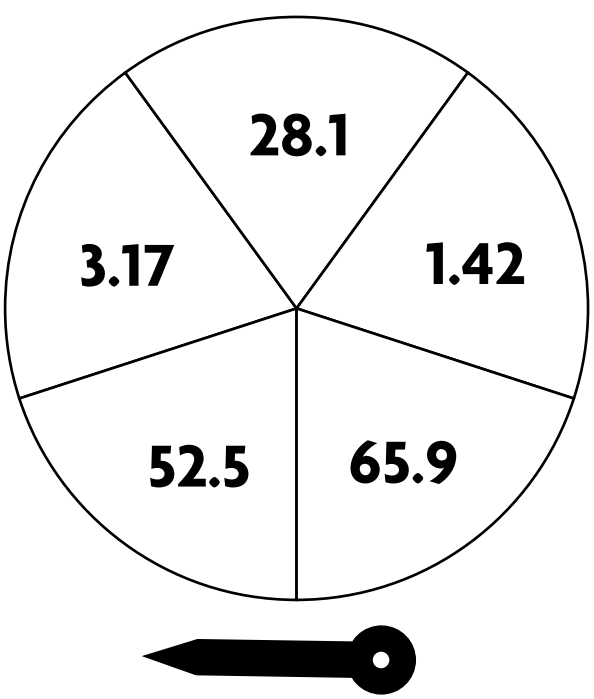
- a 5-part spinner, labeled as shown
- 15 cards — on each card write a different number from 111 to 9,999
- paper and pencil to check your answer

Directions—Game 1

1. One player draws a card and uses the spinner. He or she estimates the sum of the number on the card and the number on the spinner.
2. The other player solves to find the exact sum. If the answer is reasonable, that player scores a point.
3. Players switch roles and the game continues until one player has scored 5 points.

Directions—Game 2

Use the same rules as for the game above except find the difference of the two numbers.



19.6	1.29
30.6	62.8
7.20	