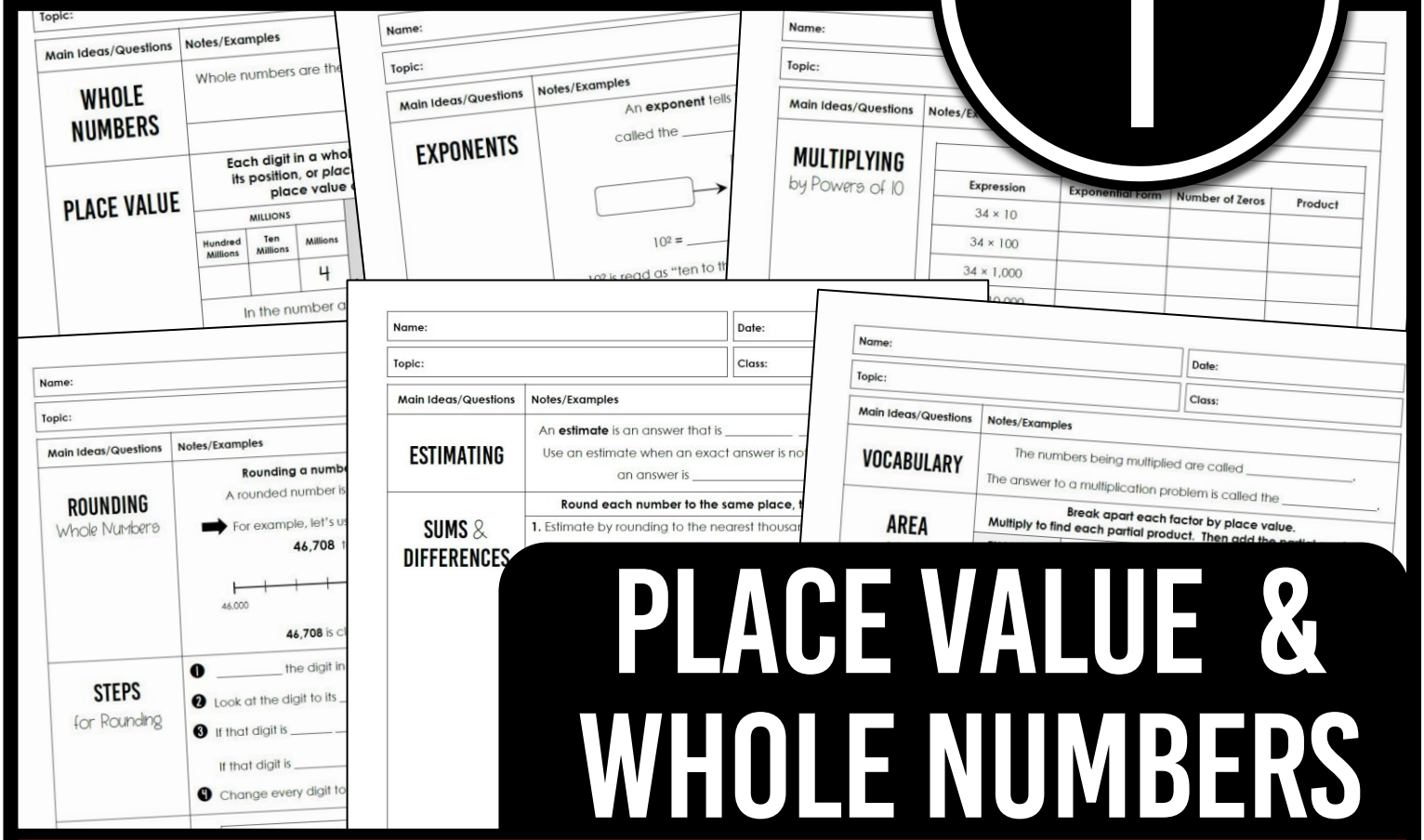
MATH 5

Unit 1



PLACE VALUE & WHOLE NUMBERS

NOTES • HOMEWORK • QUIZZES • TEST

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Unit 1 – Place Value & Whole Numbers: Sample Unit Outline

	TOPIC	HOMEWORK
DAY 1	Place Value & Number Forms (Standard, Word, Expanded); Comparing & Ordering	HW #1
DAY 2	Powers of 10 & Exponents	HW #2
DAY 3	Multiplying & Dividing by Powers of 10	HW #3
DAY 4	Rounding Whole Numbers	HW #4
DAY 5	Using Rounding to Estimate Sums, Differences, Products, and Quotients	↓
DAY 6	**Quiz 1-1**	None
DAY 7	Multi-Digit Multiplication	HW #5
DAY 8	Division with 1-Digit Divisors	HW #6
DAY 9	Division with 2-Digit Divisors	HW #7
DAY 10	Interpreting Remainders	HW #8
DAY 11	**Quiz 1-2**	None
DAY 12	Prime & Composite Numbers	HW #9
DAY 13	Prime Factorization	HW #10
DAY 14	Greatest Common Factor & Least Common Multiple	HW #11
DAY 15	Multi-Step Word Problems	HW #12
DAY 16	**Quiz 1-3**	None
DAY 17	Unit 1 Review	Study For Test
DAY 18	**UNIT 1 TEST**	None

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Name: Date:

Topic: Class:

Main Ideas/Questions	Notes/Examples
WHOLE NUMBERS	Whole numbers are the …
PLACE VALUE	Each digit in a whole … its position, or *place* … place value of …

MILLIONS

Hundred Millions	Ten Millions	Millions
		4

In the number above …

Name: Date:

Topic: Class:

Main Ideas/Questions	Notes/Examples
EXPONENTS	An **exponent** tells how m… called the _____, is …

Name: Date:

Topic: Class:

Main Ideas/Questions	Notes/Examples
ESTIMATING	An **estimate** is an answer that is _____ _____ the … Use an estimate when an exact answer is not needed … an answer is _____.

Round each number to the same place, then add or…

Name: Date:

Topic: Class:

Main Ideas/Questions	Notes/Examples
MULTIPLYING by Powers of 10	**Look for a pattern!**

Expression	Exponential Form	Number of Zeros	Produ…
34 × 10			
34 × 100			
34 × 1,000			
34 × 10,000			

When you multiply a whole number by a power…

Name: Date:

Topic: Class:

Main Ideas/Questions	Notes/Examples
VOCABULARY	The numbers being multiplied are called _____. The answer to a multiplication problem is called the _____.
AREA Model	**Break apart each factor by place value. Multiply to find each partial product. Then add the partial products.**

EXAMPLE 1 **243 × 36**

Name: Date:

Topic: Class:

Main Ideas/Questions	Notes/Examples
ROUNDING Whole Numbers	**Rounding a number makes it simpler to work with.** A rounded number is _____ to the exact number. ➡ For example, let's use the number line below to round …

47,000

ng to.

d up.

d down.

digit to _____.

lumber

Name: Date:

Topic: Class:

Main Ideas/Questions	Notes/Examples
VOCABULARY	_____: the number being divided _____: the number you divide by _____: the answer _____: the amount left over

Division can be written in many ways:

METHOD 1: Partial Quotients

If you are left with zero, there is **no remainder.**

If you are left with a number smaller than the divisor, **that is the remainder.**

The steps below outline using partial quotients to divide 632 by 4.

1	Think in 100s. How many times can 4 go into 632? 100 × 4 = 400. Subtract.	4 | 632 − 400 | 100
2	Think in 10s. How many times can 4 go into 232? 50 × 4 = 200. Subtract.	232 − 200 | 50
3	Repeat until you can't subtract. 8 × 4 = 32.	32 − 32 | + 8
4	Add up the partial quotients: 100 + 50 + 8 = 158.	0 | 158

100 + 50 + 8 = 158

632 ÷ 4 = 158

…otients to find each quotient.

2. 738 ÷ 6

Name: Date:

Topic: Class:

Main Ideas/Questions	Notes/Examples
REMAINDERS	When you divide in a word problem, **you mu… remainder means.** Read the question carefu… common ways to interpret a rem…
DROP the Remainder	**Use only the _____** The remainder is not enough to make and…
Example 1	Ms. Lee has 230 stickers. She puts 12 s… a book. How many pages can she fil…

Look for: *How many full…? How many can be made/bought?*

Quotient: ___

What does the…

Answer: ___

ROUND UP the Quotient	**Add _____ to the quotient** An extra group is needed for the re…
Example 2	348 students are going on a field trip. … students. How many buses are needed…

Look for: *How many are needed so that everyone/everything fits?*

Quotient: ___

What does the…

Answer: ___

REMAINDER to the Answer	**The answer is the _____, or th…**
Example 3	A florist has 175 roses. She makes bou… How many roses will be left over?

Look for: *How many are left? How many extra?*

Quotient: ___

What does the…

Answer: ___

Name: Date:

Topic: Class:

Main Ideas/Questions	Notes/Examples
FACTORS	**Factors** are whole numbers **mult…** to get a product. Use a **T-chart** to list **factor pairs.** • Start with _____. • Stop when the factors start…
PRIME Numbers	• A **prime number** is a whole … **exactly 2 factors:** 1 and itse… • **Examples:** _____
COMPOSITE Numbers	• A **composite number** is a w… **more than two factors.** • **Examples:** _____ • *The numbers 0 and 1 are _…
EXAMPLES	**List the factors of each nu…** **1.** 13 **2.** 21 **4.** 45 **5.** 31

PRIME Number Hunt

Shade prime numbers. **Cross out** composite numbers. **Circle** if neither.

1	2	3	4						
11	12	13	14						
21	22	23	24						
31	32	33	34						
41	42	43	44	45	46	47	48	49	50

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Unit 1 Test Study Guide (Place Value & Whole Numbers)

Name: _____

Date: _____

Topic 1: Place Value & Number Forms

Use the number 43,186,725 for questions 1-4.

1. What digit is in the ten thousands place?

2. What is the place of the 7?

3. What is the value of the 3?

4. What is 100,000 more than the …

Write each number in standard form.

5. eight million, five hundred two thousand, sixty

6. 700,000 + 30,000 + 400 + 9

7. Write in word form: **3,250,708**

8. Write in expanded form: **5,040,617**

Compare the values by filling in the circle with a <, >, or = symbol.

9. 3,407,215 ◯ 3,470,152

10. sixty thousand, eight ◯ 60…

Answer each question.

11. Order the numbers from least to greatest:
274,830 2,748,300 274,380 27,483

12. In 3,300, the value of the 3 in t… place is _____ the valu… the hundreds place.

Topic 2: Powers of 10 & Exponents

Write in exponential form.

13. 10 × 10 × 10 × 10 × 10 × 10 × 10 × 10

Answer each question.

14. Write 1,000 as a power of 10.

15. Write 10^6 as repeated multiplic… find the value.

16. Write in expanded form using powers of 10: **1,090,300**

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Name: _____

Date: _____ **Per:** _____

Unit 1 Test

Place Value & Whole Numbers

1. Write the number below in standard form.

"Nine million, two hundred thousand, eighty-five"

2. Which statement about the number below is true?

58,407,132

A. There is a 4 in the ten thousands place.
B. There is an 8 in the millions place.
C. There is a 1 in the tens place.
D. There is a 7 in the hundreds place.

Use the number 26,483,150 for questions 3 and 4.

3. What is the value of the 6?

4. Round the number to the nearest hundred thousand.

5. Which shows the number below in expanded form?

3,070,204

A. 3,000,000 + 700,000 + 2,000 + 4
B. 300,000 + 70,000 + 200 + 4
C. 3,000,000 + 70,000 + 200 + 4
D. 3,000,000 + 7,000 + 200 + 4

6. The value of the 3 in 230,000 is how many times the value of the 3 in 13,000?

A. 10
B. 100
C. 1,000
D. 10,000

7. Which values are equal to 100,000? Check all that apply.

☐ 10^5 ☐ 10^4 ☐ 1,000 × 100 ☐ 100 × 100 ☐ 10 × 5 ☐ 10 × 10^4

8. Which shows 704,080 in expanded form using powers of 10?

A. $(7 \times 10^6) + (4 \times 10^4) + (8 \times 10^2)$
B. $(7 \times 10^5) + (4 \times 10^4) + (8 \times 10^1)$
C. $(7 \times 10^4) + (4 \times 10^3) + (8 \times 10^1)$
D. $(7 \times 10^5) + (4 \times 10^3) + (8 \times 10^1)$

9. Find the product.

83×10^5

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