Name _____ Date _____

Practice
Lesson 1

Investigating Mystery Number Puzzles

Solve the puzzles. The boxes below the clues show you the number of digits in the solution.

Clues | **Workspace**

1 Puzzle A

- ☐ Multiple of 9 less than 81
- ☐ Even
- ☐ Difference between the digits = 5

☐☐

2 Puzzle B

- ☐ Multiple of 20 greater than 80, but less than 300
- ☐ Sum of the digits is even
- ☐ Sum of the digits is a 2-digit number

☐☐☐

Test Prep

3 Ms. Nichols wanted to put the same number of computers into 3 classrooms. She had a total of 84 computers.
Which statement is true?

A. She cannot put the same number of computers into each classroom.
B. She can put 29 computers into each classroom.
C. She can put 43 computers into each classroom.
D. She can put the same number of computers into each classroom.

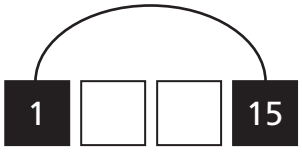
Name _____ Date _____

Practice
Lesson 2

Factoring

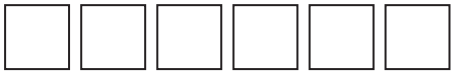
Write all the factors of each product in the diagram. Connect pairs of factors.

1. **15**



2. **4**

3. **28**



4. **50**

Test Prep

Gayle is shading squares with multiples on the grid.

5. If she shades all the squares with multiples of 2, how many squares will she shade? _____

6. If she shades all the squares with multiples of 4, how many squares will she shade? _____

7. If she shades all the squares with multiples of 5, how many squares will she shade? _____

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Name _____ Date _____

Practice
Lesson 3

Finding Common Factors

- **To solve these puzzles, you may need to make more than one list of numbers.**
- **Read all the clues for each puzzle before you begin.**
- **The boxes below the clues show you the number of digits in the solution.**
- **Some puzzles have more than one solution.**

Clues **Workspace**

1 Puzzle A

☐ Odd

☐ Common factor of 12 and 18

☐

2 Puzzle B

☐ Less than 200

☐ Sum of the digits = 6

☐ Product of the digits = 0

☐ Each factor of 75 is its factor too

☐☐☐

Test Prep

3 Which number is NOT a common multiple of 8 and 5?

A. 80
B. 0
C. 140
D. 200

4 Lois arrived at the library at 9:30 A.M. She spent 35 minutes in the magazine section, 48 minutes in the fiction section, and 1 hour and 15 minutes in the biography section. What time did Lois leave the library?

_____

Name _____ Date _____

Practice
Lesson 4

Investigating Prime and Composite Numbers

List the factors. Write *P* for Prime, *C* for Composite, or *N* for Neither.

Number	Factors	P, C, or N
1 40		
2 23		
3 49		
4 1		
5 100		

Test Prep

6 Which group contains all of the factors of 18?

A. 1, 18
B. 1, 2, 6, 9, 18
C. 1, 2, 3, 6, 9, 18
D. 1, 3, 6, 9, 18

7 Kenji and John drive 270 miles using 9 gallons of gas. How many miles do they drive on one gallon of gas?

_____ miles

Name _____ Date _____

Practice
Lesson 5

Writing a Number as the Product of Prime Factors

Draw factor trees and circle the prime factors.
Write number sentences with the prime factors.

1. 

44 = _____

2. 

28 = _____

3. 

72 = _____

4. 

144 = _____

Test Prep

5. Which number is divisible by 2, 3, 5, 6, and 10?

   A. 48,405
   B. 45,840
   C. 36,315
   D. 63,550

6. A bead factory divides 54,000 beads evenly into 6 containers. How many beads are in each container? Are there any beads left over?

   _____

Name _____ Date _____

Practice
Lesson 6

Investigating Divisibility by 2, 5, and 10

Write *yes* or *no*.

1 Is it divisible by 2?

128 _____	**1,046** _____	**2,468** _____
465 _____	**1,298** _____	**788** _____

How do you know? _____

_____

2 Is it divisible by 5?

110 _____	**65** _____	**105** _____
42 _____	**1,040** _____	**6,630** _____

How do you know? _____

_____

3 Is it divisible by 10?

425 _____	**1,250** _____	**16,802** _____
760 _____	**405** _____	**21,970** _____

How do you know? _____

_____

Test Prep

4 Mr. Ruiz used a copy machine to print 395 pages. The machine stapled them into packets of 5 pages each. How many pages were left over?

A. 0 **B.** 2 **C.** 3 **D.** 4

Name _____ Date _____

Practice
Lesson 7

Investigating Divisibility by 3, 6, and 9

Write *yes* or *no*.

1. Is the number divisible by 3?

102 _____	**473** _____	**780** _____
312 _____	**561** _____	**803** _____

How can you tell if a number is divisible by 3? _____

_____

2. Is the number divisible by 9?

333 _____	**612** _____	**3,210** _____
945 _____	**514** _____	**4,959** _____

How can you tell if a number is divisible by 9? _____

_____

3. Is the number divisible by 6?

501 _____	**840** _____	**4,545** _____
102 _____	**134** _____	**5,454** _____

How can you tell if a number is divisible by 6? _____

_____

Test Prep

4. The number 8,955 is NOT divisible by

A. 3 **C.** 9
B. 5 **D.** 10

5. On Friday, Saturday, and Sunday, a total of 630 newspapers were delivered. If the same number of newspapers were delivered each day, how many newspapers were delivered on Sunday?

_____ newspapers