

NAME \_\_\_\_\_

DATE \_\_\_\_\_

**Number Patterns** page 1 of 2

For each pattern, fill in what comes next. Then use words to describe the rule that makes each pattern.

**ex a** Pattern: 1, 4, 7, 10, 13, 16, 19

**b** Rule:

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**1 a** Pattern: 3, 6, 12, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**b** Rule:

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**2 a** Pattern: 16, 8, 4, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**b** Rule:

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**3 a** Pattern: 10, 100, 1,000, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**b** Rule:

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**4 a** Pattern:  $2\frac{1}{8}$ ,  $3\frac{2}{8}$ ,  $4\frac{3}{8}$ ,  $5\frac{4}{8}$ , \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**b** Rule:

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**CHALLENGE**

**5 a** Pattern:  $\frac{18}{9}$ ,  $\frac{15}{9}$ ,  $1\frac{3}{9}$ , 1, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

**b** Rule:

(continued on next page)

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**Number Patterns** page 2 of 2**6** Fill in the missing numbers in each count-by sequence.

2	2, 4, 6, 8, 10, 12, _____, _____, _____, _____, _____, _____
5	5, 10, 15, 20, 25, _____, _____, _____, _____, _____, _____
10	10, 20, 30, 40, _____, _____, _____, _____, _____, _____

**7** Write a sentence to explain what the numbers in each sequence above have in common. *Hint: Look at the numbers in the ones place.*

- a** All the count-by-2 numbers
- b** All the count-by-5 numbers
- c** All the count-by-10 numbers

**8** All the numbers in a count-by sequence are divisible by the same number. For example, all the numbers in the count-by-2 sequence are divisible by 2. Think about whether each number below is divisible by 2, 5, and 10.

Number	Divisible by 2?	Divisible by 5?	Divisible by 10?
96	yes	no	no
40			
75			
37			
110			

Number	Divisible by 2?	Divisible by 5?	Divisible by 10?
364			
930			
361			
576			
785			