Name $\qquad$

## Master 10.18 Extra Practice 1

## Lesson 1: Patterns in Multiplication

1. Multiply. Use mental math.
a) $2 \times 17 \times 5$
b) $31 \times 5 \times 2$
c) $2 \times 147 \times 5$
d) $2 \times 43 \times 50$
e) $3 \times 18 \times 10$
f) $4 \times 50 \times 5$
2. Multiply $10 \times 35$. Use this multiplication fact to find the missing factors.
a) $\square \times 35=385$
b) $\square \times 35=315$
c) $420=\square \times 35$
d) $280=\square \times 35$
$\qquad$

## Master 10.18 Extra Practice 1

## Lesson 2: Exploring Patterns in Decimals with a Calculator

1. a) Change each fraction to a decimal.
$\frac{1}{12}, \frac{2}{12}, \frac{3}{12}, \frac{4}{12}, \frac{5}{12}, \frac{6}{12}, \frac{7}{12}$
b) Describe any patterns.
c) Write five other fractions with denominator 12. Change these fractions to decimals.
2. a) Copy and complete each table for numerators to 10 .

| Fraction | Decimal |
| :---: | :--- |
| $\frac{1}{5}$ |  |
| $\frac{2}{5}$ |  |
| $\frac{3}{5}$ |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


| Fraction | Decimal |
| :---: | :--- |
| $\frac{1}{10}$ |  |
| $\frac{2}{10}$ |  |
| $\frac{3}{10}$ |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

b) Describe the pattern in each table.
c) How are the patterns in the tables the same?

How are they different?

Name $\qquad$ Date $\qquad$

## Master 10.19 Extra Practice 2

## Lesson 3: Graphing Patterns

1. Wayne is paid $\$ 7$ an hour to mow lawns.

The table shows his earnings.

| Hours | Amount Earned (\$) |
| :---: | :---: |
| 2 | 14 |
| 4 | 28 |
| 6 | 42 |
| 8 | 56 |

a) Write a pattern rule for the amount earned.
b) Draw a line graph to display the data.
c) Suppose Wayne works 7 h .

Use the graph to find how much he will earn.

Name $\qquad$ Date $\qquad$
Master 10.19 Extra Practice 2

## Lesson 4: Another Number Pattern

1. a) Find the 15th Fibonacci number.
b) What is the sum of the first 15 Fibonacci numbers?
2. Suppose you followed the Fibonacci pattern, but started at 6 .
$6,6,12, \ldots$
Show the first 10 numbers in this pattern.
$\qquad$
Master 10.20 Extra Practice 3

Lesson 6: Tiling Patterns

1. For the pattern below, describe:

- the figures used in the pattern
- the part of the pattern that repeats
- how you could extend the pattern


2. a) On this grid, create a tiling pattern using 2 or more different figures.

b) Describe your pattern.
