Name _____ Date _____

Skills Maintenance
Rational Number Conversions

Activity 1

Fill in the missing parts in the table.

Fraction	Decimal Number	Percent
$\frac{3}{4}$	0.75	
	0.25	25%
$\frac{5}{5}$		100%
$\frac{1}{5}$	0.20	
	0.5	50%
$\frac{4}{5}$		80%
	1.5	150%
$\frac{1}{3}$		33%

Name _____ Date _____

Apply Skills
Patterns and Types of Numbers

| **Activity 1** |

Use algebra to identify the different types of numbers. Show your work.

1. Which numbers work for $2 \cdot n$?

10   11   12   13   14   15   16   17   18   19   20   21   22

_____

_____

_____

These are called _____ numbers.

2. Which of the numbers work for $2 \cdot n + 1$?

10   11   12   13   14   15   16   17   18   19   20   21   22

_____

_____

_____

These are called _____ numbers.

3. Which of the numbers work for $\frac{n}{n} = 1$ and $\frac{n}{1} = n$, but are not divisible by any other number?

10   11   12   13   14   15   16   17   18   19   20   21   22

Show your work here:

_____

_____

_____

These are called _____ numbers.

Name _____ Date _____

Problem-Solving Activity
Ratios and Percents

Determine which situation has the biggest percent increase. Find the ratios, then convert them to decimal numbers and percents.

1. The people who own buildings in Shanghai, China, are in a race to build the tallest building. The Yang Tower added 40 stories to its original building, which was already 80 stories tall. The Ling Office Complex added 30 stories to its building, which was already 90 stories tall. Which building had the biggest percent increase in height?

    _____

    _____

2. Bethany's softball team had 10 more home runs this year than last year. Last year, her team had 40 home runs. Jalicia's team also had 10 more home runs this year and last year her team had 50 home runs. Which team had a bigger percent increase in home runs?

    _____

    _____

3. This year two farmers did an experiment. Jones put the fertilizer GroTec on his corn. It was 3 feet taller than last year. Last year his corn was 6 feet tall. Marston put Chemrow on his corn. Last year his corn was 5 feet tall. This year it was 2 feet taller. Which fertilizer made the biggest percent increase?

    _____

    _____

4. Jamar bought a smaller car, and he now gets 15 more miles per gallon that his last car did. With his last car, he got 20 miles per gallon. His cousin, Trece, also bought a new car. He gets 20 more miles per gallon. He used to get 30 miles per gallon with his old car. Who got the biggest percent increase in miles per gallon with their new car?

    _____

    _____