Sept. 25
Periods 1,2,4,6

Warm Up- fill in %, Fraction, and Decimal Chart

Class work - Go over pg. 62 Odds
Complete pg. 63 odds. partner work

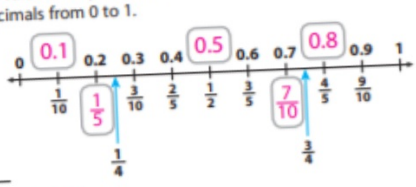
Homework- pg. 65-66

% out of 100	12.5%	$33.\overline{3}\%$	$\approx 67\%$ $66.\overline{6}\%$
Fraction $\frac{a}{b}$	$\frac{1}{8}$	$\frac{1}{3}$	$\frac{2}{3}$
Decimal	$0.\underbrace{125}_{\rightarrow \%}$	$0.\overline{33}$	about 0.67 ≈ 0.67

EXPLORE ACTIVITY FL Prep for 6.NS.3.7a

Equivalent Fractions and Decimals

Fractions and decimals that represent the same value are *equivalent*. The number line shows equivalent fractions and decimals from 0 to 1.



A Complete the number line by writing the missing decimals or fractions.

B Use the number line to find a fraction that is equivalent to 0.25. Explain.

$\frac{1}{4}$; 0.25 and $\frac{1}{4}$ both represent the point halfway between 0.2 and 0.3.

C Explain how to use a number line to find a decimal equivalent to $1\frac{7}{10}$.

$1\frac{7}{10}$ is a mixed number equal to $1 + \frac{7}{10}$. $\frac{7}{10}$ is equivalent to 0.7. $1 + 0.7$ is equal to 1.7, so $1\frac{7}{10}$ is equivalent to 1.7.

D Use the number line to complete each statement.

$0.2 = \frac{1}{5}$ $\quad 0.3 = \frac{3}{10}$ $\quad 0.75 = \frac{3}{4}$ $\quad 1.25 = 1\frac{1}{4}$

Reflect

1. **Communicate Mathematical Ideas** How does a number line represent equivalent fractions and decimals?

   A decimal and fraction that represent the same point on the number line are equivalent.

2. Name a decimal between 0.4 and 0.5.

   Sample answers: 0.42, 0.47

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EXAMPLE 1

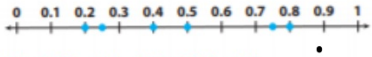
FL 6.NS.3.7, 6.NS.3.7a

A Order 0.2, $\frac{3}{4}$, 0.8, $\frac{1}{2}$, $\frac{1}{4}$, and 0.4 from least to greatest.

STEP 1 Write the fractions as equivalent decimals.

$\frac{1}{4} = 0.25$ $\quad \frac{1}{2} = 0.5$ $\quad \frac{3}{4} = 0.75$

STEP 2 Use the number line to write the decimals in order.



$0.2 < 0.25 < 0.4 < 0.5 < 0.75 < 0.8$

The numbers from least to greatest are 0.2, $\frac{1}{4}$, 0.4, $\frac{1}{2}$, $\frac{3}{4}$, 0.8.

B Order $\frac{1}{12}$, $\frac{2}{3}$, and 0.35 from least to greatest.

STEP 1 Write the decimal as an equivalent fraction.

$0.35 = \frac{35}{100} = \frac{7}{20}$

60 is a multiple of the denominators of all three fractions.

STEP 2 Find equivalent fractions with 60 as the common denominator.

$\frac{1}{12} \overset{\times 5}{=} \frac{5}{60}$ $\quad \frac{2}{3} \overset{\times 20}{=} \frac{40}{60}$ $\quad \frac{7}{20} \overset{\times 3}{=} \frac{21}{60}$

STEP 3 Order fractions with common denominators by comparing the numerators.

$5 < 21 < 40$

The fractions in order from least to greatest are $\frac{5}{60}$, $\frac{21}{60}$, $\frac{40}{60}$.

The numbers in order from least to greatest are $\frac{1}{12}$, 0.35, and $\frac{2}{3}$.

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YOUR TURN

Order the fractions and decimals from least to greatest.

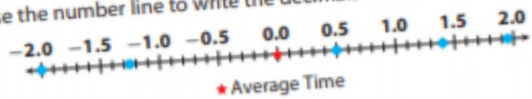
3. 0.85, $\frac{3}{5}$, 0.15, $\frac{7}{10}$ 0.15, $\frac{3}{5}$, $\frac{7}{10}$, 0.85

Order the numbers from g

STEP 1 Write the fractions as equivalent decimals.

$\frac{1}{2} = 0.5 \quad -1\frac{1}{4} = -1.25$

STEP 2 Use the number line to write the decimals in order.



$1.95 > 1.4 > 0.5 > -1.25 > -2.0$

The numbers in order from greatest to least are 1.95, 1.4, $\frac{1}{2}$, $-1\frac{1}{4}$, −2.0.

Math Talk
Mathematical Practices
Who was the fastest runner? Explain.

Mike; he finished running in the least amount of time.

Reflect

4. **Communicate Mathematical Ideas** Describe a different way to order the numbers.

Convert the decimals to fractions. $1.4 = 1\frac{4}{10}$; $-2.0 = -\frac{2}{1}$; $1.95 = 1\frac{95}{100}$; find a common denominator and compare the whole numbers and then the numerators.

YOUR TURN

5. To compare their bike times, the friends created a table that shows the difference between each person's time and the average bike time. Order the bike times from least to greatest.

Biker	John	Sue	Anna	Mike	Tom
Time above or below average (minutes)	−1.8	1	$1\frac{2}{5}$	$1\frac{9}{10}$	−1.25

$-1.8, -1.25, 1, 1\frac{2}{5}, 1\frac{9}{10}$

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(Explore Activity 1)

1. $0.6 =$ $\frac{3}{5}$
2. $\frac{1}{4} =$ 0.25
3. $0.9 =$ $\frac{9}{10}$
4. $0.1 =$ $\frac{1}{10}$
5. $\frac{3}{10} =$ 0.3
6. $1.4 =$ $1\frac{2}{5}$
7. $\frac{4}{5} =$ 0.8
8. $0.4 =$ $\frac{2}{5}$
9. $\frac{6}{8} =$ 0.75

Use the number line to order the fractions and decimals from least to greatest. (Example 1)

10. $0.75, \frac{1}{2}, 0.4$, and $\frac{1}{5}$

$\frac{1}{5}, 0.4, \frac{1}{2}, 0.75$

11. The table shows the lengths of fish caught by three friends at the lake last weekend. Write the lengths in order from greatest to least. (Example 1)

$12\frac{3}{4}, 12.7, 12\frac{3}{5}$

Lengths of Fish (cm)		
Emma	Anne	Emily
12.7	$12\frac{3}{5}$	$12\frac{3}{4}$

List the fractions and decimals in order from least to greatest.
(Example 1, Example 2)

12. $2.3, 2\frac{4}{5}, 2.6$

$2.3, 2.6, 2\frac{4}{5}$

13. $0.5, \frac{3}{16}, 0.75, \frac{5}{48}$

$\frac{5}{48}, \frac{3}{16}, 0.5, 0.75$

14. $0.5, \frac{1}{5}, 0.35, \frac{12}{25}, \frac{4}{5}$

$\frac{1}{5}, 0.35, \frac{12}{25}, 0.5, \frac{4}{5}$

15. $\frac{3}{4}, -\frac{7}{10}, -\frac{3}{4}, \frac{8}{10}$

$-\frac{3}{4}, -\frac{7}{10}, \frac{3}{4}, \frac{8}{10}$

16. $-\frac{3}{8}, \frac{5}{16}, -0.65, \frac{2}{4}$

$-0.65, -\frac{3}{8}, \frac{5}{16}, \frac{2}{4}$

17. $-2.3, -2\frac{4}{5}, -2.6$

$-2\frac{4}{5}, -2.6, -2.3$

18. $-0.6, -\frac{5}{8}, -\frac{7}{12}, -0.72$

$-0.72, -\frac{5}{8}, -0.6, -\frac{7}{12}$

19. $1.45, 1\frac{1}{2}, 1\frac{1}{3}, 1.2$

$1.2, 1\frac{1}{3}, 1.45, 1\frac{1}{2}$

20. $-0.3, 0.5, 0.55, -0.35$

$-0.35, -0.3, 0.5, 0.55$

ESSENTIAL QUESTION CHECK-IN

21. Explain how to compare 0.7 and $\frac{5}{8}$.

Convert the fraction to a decimal. $\frac{5}{8} = 0.625$. Compare by using place value or graphing both numbers on a number line. $0.7 > \frac{5}{8}$

Sept. 25
Period 5

Warm Up- pg. 17

Place Homework on your desk.

Class Work - Fractions
- Finding Simplest Form - pg 20-21 Skill 6
- Mixed Numbers and Improper Fractions- pgs. 22-24, Skill 7

Homework - Complete pgs. 22-24

$\frac{1}{2} \times \frac{10}{10} = \frac{10}{20}$ KISS

$$\frac{1}{2} \times \boxed{\frac{4}{4}} = \frac{4}{8}$$

$$\frac{5}{15} \div \boxed{\frac{5}{5}} = \frac{1}{3}$$

$$\frac{1}{3} \times \frac{8}{8} = \frac{8}{24}$$

12) $\frac{2}{3}, \frac{4}{6}, \frac{8}{12}$

13) $\frac{3}{4}, \frac{9}{12}, \frac{12}{16}, \frac{30}{40}$

14) $\frac{2}{5}, \frac{4}{10}, \frac{16}{40}, \frac{20}{50}$

To Simplify Fractions:
Divide the Numerator and the Denominator by the same value. Check to see if these numbers are factors of both: 2,3,5,7,and 11

$$\frac{4}{12} \boxed{\div \frac{2}{2}} = \frac{2}{6} \boxed{\div \frac{2}{2}} = \frac{1}{3}$$

$$2 \cdot 2 = 4$$

$$\frac{4}{12} \div \frac{4}{4} = \frac{1}{3}$$

2) $\frac{6}{14} \div \frac{2}{2} = \frac{3}{7}$

2, 3, 5, 7, 11

3) $\frac{4}{20} \div \frac{4}{4} = \frac{1}{5}$

$\frac{20}{70} \div \frac{10}{10} = \frac{2}{7}$

$$\frac{12}{28} \boxed{\div \frac{2}{2}} = \frac{6}{14} \boxed{\div \frac{2}{2}} = \frac{3}{7}$$

$2 \cdot 2$

4

$$\frac{12}{28} \div \frac{4}{4} = \frac{3}{7}$$

$3 \cdot 3 = 9$

$$\frac{18}{45} \div \frac{3}{3} = \frac{6}{15} \div \frac{3}{3} = \frac{2}{5}$$