

10-4-17

Aim: SWBAT review the basics of fractions.

HW: WS : Front - # 1-16, 22-27; Back - All

Do Now: Convert.

$$2\frac{3}{4} \text{ mixed \#}$$

$$-2\frac{3}{4}$$

$$(2 \cdot 4) + 3 = \frac{11}{4} \text{ fraction in simplest form}$$

$$-\frac{11}{4}$$

Fraction: A number that names part of a whole. Fractions also express ratios and division problems.

Proper Fraction vs.

- denominator is bigger

$$\frac{1}{4}$$

Improper Fraction

- numerator is bigger

$$\frac{5}{2} = 2\frac{1}{2}$$

$$\begin{array}{r} 2\frac{1}{2} \\ 2 \overline{) 5} \\ \underline{-4} \\ 1 \end{array}$$

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

Equivalent Fractions: Fractions that have the same value.

Create by multiplying.

$$\left(\frac{1}{4}\right) = \frac{2}{8} = \frac{3}{12}$$

Simplest Form

$$\frac{1}{4} \times 2$$

$$\frac{1}{4} \times \frac{2}{2}$$

$$2\frac{3}{6} = 2\frac{1}{2}$$

Create by dividing.

$$\frac{20}{12} = \frac{10}{6} = \left(\frac{5}{3}\right)$$

Simplest Form

Convert.

$$1\frac{7}{9} = \frac{16}{9}$$

$$1\frac{2}{5}$$

$$-2\frac{1}{4}$$

$$5\frac{1}{2}$$

$$-3\frac{1}{4}$$

$$\frac{7}{5}$$

$$-\frac{9}{4}$$

$$\frac{11}{2}$$

$$-\frac{13}{4}$$

$$\frac{8}{5}$$

$$\frac{12}{7}$$

$$\frac{-18}{7} = -2\frac{4}{7}$$

$$5\sqrt{8}$$

$$7\sqrt{12}$$

$$7\sqrt{18}$$

$$1\frac{3}{5}$$

$$-\frac{7}{5}$$

Converting improper fractions to mixed numbers.

Step 1: If negative, bring negative over to the answer.

Step 2: Set up the division problem.

Step 3: Figure out the whole amount and the remainder.

Step 4: Write the remainder as a fraction.

1) Write $\frac{7}{5}$ as a mixed number.

	<u>1 R 2</u>	<u>1 $\frac{2}{5}$</u>
	(Write using the remainder)	(Write the mixed #)

$$\begin{array}{r} 5 \overline{) 7} \\ \underline{-5} \\ 2 \end{array}$$

2) Write $\frac{9}{4}$ as a mixed number.

	<u>2 R 1</u>	<u>2 $\frac{1}{4}$</u>
	(Write using the remainder)	(Write the mixed #)

$$\begin{array}{r} 4 \overline{) 9} \\ \underline{-8} \\ 1 \end{array}$$

3) Write $\frac{12}{-7}$ as a mixed number.

		<u>-1 $\frac{5}{7}$</u>
	(Write using the remainder)	(Write the mixed #)

we never use negatives in long division ;)

$$\begin{array}{r} 1 \\ 7 \overline{) 12} \\ \underline{-7} \\ 5 \end{array}$$

the neg. always goes in the front of a mixed #.

$$\begin{array}{r} -1 \frac{5}{7} \\ \cancel{1 \frac{5}{7}} \end{array}$$

Changing mixed numerals into improper fractions.

Step 1: If negative, bring negative over to the answer.

Step 2: Multiply the whole number part and denominator and add the numerator to that answer.

Step 3: Keep the same denominator.

$$1 \frac{3}{8} = \frac{(1 \times 8) + 3}{8} = \frac{11}{8}$$

1) $2 \frac{1}{3}$ $\frac{7}{3}$

4) $1 \frac{3}{11}$ $\frac{14}{11}$

2) $3 \frac{2}{7}$ $\frac{23}{7}$

* 5) $-2 \frac{4}{7}$ $\frac{-18}{7}$

* 3) $-5 \frac{4}{9}$ $\frac{-49}{9}$

6) $10 \frac{3}{5}$ $\frac{53}{5}$

$$\frac{-41}{9}$$

$$\frac{41}{9}$$

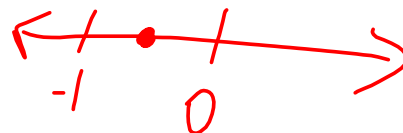
$$\frac{49}{9}$$

$$\frac{-49}{9}$$

$$-3 \frac{1}{2}$$

$$-\frac{1}{2} = -\frac{1}{2} = \frac{1}{-2}$$

~~$$3 \frac{1}{2}$$~~



Simplify.

$$\frac{16}{36} \div 2 = \frac{8}{18} \div 2 = \frac{4}{9}$$

Name _____

Extra Practice
(Lessons 5-1 through 5-3)

Fractions, Equivalent Fractions, and Simplest Form, Mixed Numerals

1-16, 22-27

Write each expression as a **fraction**. If the fraction names a whole number, state the whole number.

1. $21 \div 2$ $\frac{21}{2}$ 2. $8\overline{)55}$ 3. $7 \div 9$

4. $36 \div 4$ $\frac{36}{4} = \frac{9}{1} = 9$ 5. $9 \div 25$ 6. $14\overline{)70}$

Write each fraction in simplest form.

7. $\frac{16}{48}$ * 8. $\frac{-45}{99}$ * 9. $\frac{13}{91}$

10. $\frac{30}{42}$ 11. $\frac{84}{140}$ 12. $\frac{96}{112}$

13. $\frac{52}{78}$ * 14. $\frac{62}{-66}$ 15. $\frac{15}{90}$

16. $\frac{56}{84}$ 17. $\frac{105}{175}$ * 18. $\frac{-258}{387}$

* 19. $\frac{-300}{375}$ * 20. $\frac{-255}{240}$ 21. $\frac{1320}{1650}$

Change each fraction to a whole number or a mixed numeral in simplest form.

* 22. $\frac{-17}{2}$ 23. $\frac{24}{10}$ 24. $\frac{68}{17}$

25. $\frac{98}{32}$ * 26. $\frac{85}{15}$ * 27. $\frac{140}{-35}$

* 28. $\frac{162}{24}$ 29. $\frac{215}{43}$ 30. $\frac{776}{64}$

Write 2 equivalent fractions for each of the following.

1) $\frac{5}{20}$ _____

2) $\frac{50}{150}$ _____

3) $\frac{3}{9}$ _____

4) $\frac{45}{90}$ _____

Circle the letter of the best choice.

5) Pat shaded a fraction of this circle.



Which circle below shows an equivalent fraction?

- A. B. C. D.

6) Which figure is shaded to show $\frac{2}{3}$?

- A. B. C. D.

7) What is the missing number?

$$\frac{2}{7} = \frac{\square}{21}$$

- A. 4
B. 5
C. 6
D. 7

8) The figure below shows $\frac{3}{6}$ shaded.



Which fraction is equivalent to $\frac{3}{6}$?

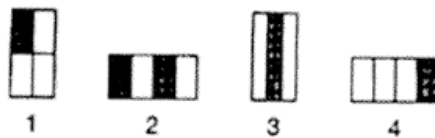
- A. $\frac{1}{6}$ C. $\frac{1}{2}$
B. $\frac{1}{3}$ D. $\frac{3}{3}$

9) What part of the figure is shaded?



- A. $\frac{1}{2}$
B. $\frac{2}{3}$
C. $\frac{3}{4}$
D. $\frac{5}{9}$

10) Each figure represents a fraction. Which two figures represent the same fraction?



- A. Rectangles 1 and 2
B. Rectangles 1 and 4
C. Rectangles 2 and 3
D. Rectangles 3 and 4