

Homework for Wednesday 10-25-17

*Show your work!

Name: Key Date: _____ Period: _____

Big Fractions Study Guide

Convert the following mixed numbers to improper fractions.

1. $3\frac{4}{7} = \frac{25}{7}$

2. $2\frac{1}{8} = \frac{17}{8}$

3. $6\frac{7}{11} = \frac{73}{11}$

Convert the following improper fractions to mixed numbers.

4. $\frac{34}{7} = 4\frac{6}{7}$

5. $\frac{52}{4} = 13$

6. $\frac{24}{8} = 3$

Add or subtract the following fractions with like denominators.

7. $\frac{4}{6} - \frac{2}{6} = \frac{2 \div 2}{6 \div 2} = \frac{1}{3}$

8. $\frac{15}{18} + \frac{2}{18} = \frac{17}{18}$

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Add or subtract the following fractions with unlike denominators.

9. $\frac{5}{7} - \frac{2}{14} =$ (9) $\frac{5 \times 2}{7 \times 2} = \frac{10}{14}$

10. $\frac{4}{5} - \frac{7}{11} =$ (10) $\frac{2 \times 1}{14 \times 1} = \frac{2}{14}$
 $\frac{8 \div 2}{14 \div 2} = \frac{4}{7}$

11. $\frac{3}{10} + \frac{4}{5} =$ (11) $\frac{3 \times 1}{10 \times 1} = \frac{3}{10}$

12. $\frac{4}{5} + \frac{3}{4} =$ (12) $\frac{4 \times 2}{5 \times 2} = \frac{8}{10}$
 $\frac{11}{10} = 1\frac{1}{10}$

(10) $\frac{4 \times 11}{5 \times 11} = \frac{44}{55}$

(10) $\frac{7 \times 5}{11 \times 5} = \frac{35}{55}$
 $\frac{9}{55}$

(12) $\frac{4 \times 4}{5 \times 4} = \frac{16}{20}$

(12) $\frac{3 \times 5}{4 \times 5} = \frac{15}{20}$
 $\frac{31}{20} = 1\frac{11}{20}$

Multiply. Write each answer in simplest form.

13) $5 \cdot \frac{1}{5} =$
 Make the whole # into a fraction $\rightarrow \frac{5}{1} \cdot \frac{1}{5} = \frac{5}{5} = 1$

14) $\frac{5}{12} \cdot \frac{6}{7} =$
 $\frac{30 \div 6}{84 \div 6} = \frac{5}{14}$

15) $5\frac{3}{8} \cdot 2\frac{2}{7} =$
 Change the mixed # to improper fraction $\rightarrow \frac{43}{8} \cdot \frac{16}{7} = \frac{688}{56}$
 $= 12\frac{16}{56} \div 8 = 12\frac{2}{7}$

16) $\frac{4}{9} \cdot 8 =$
 $\frac{4 \times 8}{9 \times 1} = \frac{32}{9} = 3\frac{5}{9}$

17) $\frac{3}{14} \cdot 2\frac{5}{8} =$
 $\frac{3 \times 21}{14 \times 8} = \frac{63}{112} \div 7 = \frac{9}{16}$ p2

18) $\frac{10}{11} \cdot \frac{3}{5} =$
 $\frac{30 \div 5}{55 \div 5} = \frac{6}{11}$

Write the reciprocal of each fraction.

$$19) \frac{4}{7} = \underline{\frac{7}{4}}$$

$$20) \frac{9}{15} = \underline{\frac{15}{9}}$$

$$21) \frac{4}{1} = \underline{\frac{1}{4}}$$

Change the whole # into a fraction by putting it over a 1 then flip it!

$$22) \frac{2}{5} = \underline{\frac{5}{2}}$$

$$23) \frac{10}{1} = \underline{\frac{1}{10}}$$

$$24) \frac{5}{6} = \underline{\frac{6}{5}}$$

Divide. Write each answer in simplest form.

$$25) \frac{2}{3} \div \frac{1}{6} = \underline{\hspace{2cm}}$$

K C F

$$\frac{2}{3} \times \frac{6}{1} = \frac{12}{3} = \textcircled{4}$$

$$26) \frac{9}{1} \div \frac{3}{4} = \underline{\hspace{2cm}}$$

K C F

$$\frac{9}{1} \times \frac{4}{3} = \frac{36}{3} = \textcircled{12}$$

$$27) 4\frac{1}{2} \div 2\frac{3}{8} = \underline{\hspace{2cm}}$$

$$\frac{9}{2} \div \frac{19}{8} =$$

$$\frac{9}{2} \times \frac{8}{19} = \frac{72}{38} = \frac{34}{38} \div 2 = \textcircled{1\frac{17}{19}}$$

$$28) \frac{7}{9} \div 5\frac{4}{9} = \underline{\hspace{2cm}}$$

$$\frac{7}{9} \div \frac{49}{9} =$$

$$\frac{7}{9} \times \frac{9}{49} = \frac{63}{441} \div 63 = \textcircled{\frac{1}{7}}$$

$$29) \frac{7}{10} \div 2\frac{5}{8} = \underline{\hspace{2cm}}$$

$$\frac{7}{10} \div \frac{21}{8} =$$

$$\frac{7}{10} \times \frac{8}{21} = \frac{56}{210} \div 7 = \textcircled{\frac{8}{30}}$$

$$30) 7 \div 1\frac{1}{2} = \underline{\hspace{2cm}}$$

$$\frac{7}{1} \div \frac{3}{2} =$$

$$\frac{7}{1} \times \frac{2}{3} = \frac{14}{3} = \textcircled{4\frac{2}{3}}$$

Change mixed # to improper fraction

(X) 31)

RECIPE A recipe make $5\frac{1}{2}$ dozen cookies. Marquis needs to make $3\frac{3}{4}$ times this amount. How many dozens of cookies will he make?

$$5\frac{1}{2} \times 3\frac{3}{4}$$

$$\frac{11}{2} \times \frac{15}{4} = \frac{165}{8} = 20\frac{5}{8} \text{ dozens of Cookies}$$

(X) 32)

QUILT A quilt measures $4\frac{2}{3}$ feet by 6 feet. What is the area of the quilt?

$$A = l \times w$$

$$4\frac{2}{3} \times 6$$

$$4\frac{2}{3} \times \frac{6}{1}$$

$$\frac{14}{3} \times \frac{6}{1} = \frac{84}{3} = 28 \text{ ft}^2$$

(÷) 33)

NUTS A package contains $14\frac{3}{8}$ cups of nuts. Each serving is $1\frac{1}{4}$ cups. How many servings does the package contain?

$$14\frac{3}{8} \div 1\frac{1}{4}$$

$$\frac{115}{8} \div \frac{5}{4}$$

K C F

$$\frac{115}{8} \times \frac{4}{5} = \frac{460}{40} = 11\frac{20}{40}$$

$$= 11\frac{1}{2} \text{ servings}$$

Change mixed # to improper fraction first

(÷) 34)

FRUIT A package contains $13\frac{1}{16}$ cups of fruit salad. Each serving is $1\frac{3}{8}$ cups. How many servings does the package contain?

$$13\frac{1}{16} \div 1\frac{3}{8}$$

$$\frac{209}{16} \div \frac{11}{8}$$

K C F

$$\frac{209}{16} \times \frac{8}{11} = \frac{1672}{176} = 9\frac{88}{176}$$

$$= 9\frac{1}{2} \text{ servings}$$

(÷) 35)

CHAIN Duane bought $68\frac{3}{4}$ inches of chain for an art project. How many 15-inch chains can he make from it?

$$68\frac{3}{4} \div 15$$

$$\frac{275}{4} \div \frac{15}{1}$$

K C F

$$\frac{275}{4} \times \frac{1}{15} = \frac{275}{60} = 4\frac{35}{60} = 4\frac{7}{12} \text{ chains}$$

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