Name:\_\_\_\_\_KEY\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ Due:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Math - Unit 4 Fraction Concepts, Addition, Subtraction, Multiplication and Division Study Guide

1. For each situation, write a division expression that represents it **and** give each answer as a fraction.

Jamie invited 6 friends to a birthday party. She had 3 cakes to share. If they share the cakes equally, what fraction of cake will each girl have?

Division sentence\_\_\_\_7÷3\_\_\_\_\_ Fraction\_\_\_\_7/3\_\_\_\_\_\_

Ben is making birdhouses. He has 5 feet of wood. He needs to make 9 birdhouses using the same amount of wood for each one. What fraction of a foot will he use for each birdhouse?

Division sentence\_\_\_\_\_9÷5\_\_\_\_\_\_ Fraction\_\_\_\_\_9/5\_\_\_\_\_\_\_

1. List **two** fractions that express the shaded amount.

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 \_\_\_\_1/3\_\_\_\_\_ \_\_\_\_3/9\_\_\_

\_\_\_1/2\_\_\_\_ \_\_\_\_12/24\_\_\_

1. For each fractional amount, write its equivalent in simplest form. (Simplify/Reduce)

Three twelfths\_\_\_\_1/4\_\_\_ 16 out of 18\_8/9\_\_\_\_

24/40\_\_\_3/5\_\_\_\_\_ 20 divided by 30\_\_\_\_2/3\_\_\_\_\_\_ 7/42\_\_\_1/6\_\_

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\_\_\_\_4/5\_\_\_\_ \_\_\_\_\_7/12\_\_\_\_\_\_

1. For each pair of fractions below, write <, >, or = to show that the first fraction is less than, greater than, or equal to the second.

4 8 3 1 2 < 3 3 = 6

5 > 11 9 > 6 7 5 8 16

1. Find the two totals. Then circle the sum that is closer to 1. Explain how you found the sums and how you determined which is closer to 1.

1 + 3 = 1 + 2 =

3 4 \_1 and 1/12\_ 2 5 \_\_9/10\_\_

1 and 1/12 is closer to one because the pieces of the fraction are smaller, etc.

1. Solve each problem. Use numbers, pictures, and/or words to show your thinking.

Rachel ate 2 ¾ slices of pizza. Sarah ate 3 and 1/6 slices. How much pizza did they eat all together?

5 and 11/12

On Monday, 2/6 of the students in 5th grade went to the book fair. On Tuesday, 1/4 of the 5th grade students went to the book fair. The rest of the 5th grade students went on Wednesday. What fraction of the 5th grade students went on Wednesday?

5/12

Sam is making pancakes with fresh fruit. He will need 1 ¼ cups of strawberries, ¾ cups of blueberries, and 2 and one third cups of bananas. How much fruit will Sam need altogether for his pancakes?

4 and 1/3

Natalie, Serena, and Brenton are sharing 2 sandwiches. Natalie says she can eat ¼ of a sandwich. Serena says she can eat 2/3 of a sandwich and Brenton says he can eat 5/6. If they each eat that amount, how much of the sandwiches will be left?

1/4

1. What number will make the statement correct?

4/9 = x/36 x = ?

1. 12 b. 16 c. 8 d. 20
2. Paul read 5/6 of his chapter book. Brett read 3/8 of his chapter book. How much more has Paul read than Brett?
3. 2/8 b. 11/24 c. 2/24 d. 5/24
4. Which fraction represents 2 ÷ 7?
5. 7/2 b. 3 1/7 c. 1/7 d. 2/7
6. Jack and Jill each bought a candy bar. Jack broke his into 6 equal pieces and at 4 of them. Jill broke hers into 8 equal pieces and ate 3 of them. Which statement correctly compares the amount of candy bar that each person ate?
7. 4/6 < 3/8 b. 6/4 < 8/3 c. 4/6 > 3/8 d. 4/6 = 3/8

5) Answer the problems and model your answer using the rectangles.

$\frac{1}{4}$ x $\frac{3}{4}$ = 3/16 $\frac{2}{3}$ x $\frac{2}{5}$ = 4/15

6) $\frac{3}{4}$ of fifth graders enjoy chocolate. Of those students, only $\frac{1}{3}$ also enjoy sour candy. What fraction of fifth graders enjoy both chocolate and sour candy?

1/4

7) $\frac{1}{2} $ of fifth graders like broccoli. $\frac{3}{5}$ of those students will only eat broccoli with cheese. What fraction of fifth graders will only eat their broccoli with cheese?

3/10

8) Answer the following division problem, and use the circle to model your answer.

 $\frac{3}{4}$ ÷ $\frac{1}{8}$

10) Find the product of each multiplication problem.

$3\frac{1}{5}$ x $4\frac{1}{2}$ = 14 and 2/5 $\frac{8}{9}$ x $\frac{19}{20}$ = 38/45

$1\frac{3}{5}$ x $20\frac{1}{8}$ =32 and 1/5 $\frac{8}{9}$ x $4\frac{3}{4}$ = 2/9

11)

If each person at a party eats $\frac{5}{8}$ of a pound of roast beef, and there are 4 people at the party, how many pounds of roast beef are needed? Use the models below to help you solve the problem.

= n

Answer: 2 and 4/8 = 2 and 1/2

12)

Using the idea of common denominators, use the following models to show the solution of $\frac{2}{4}$ + $\frac{1}{3}$

 + =

 $\frac{2}{4}$ $\frac{1}{3}$ Answer: 10/12=5/6