Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fraction\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fraction\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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

Three twelfths\_\_\_\_\_\_\_\_\_\_\_ 16 out of 18\_\_\_\_\_\_\_\_\_\_

24/40\_\_\_\_\_\_\_\_\_\_\_\_ 20 divided by 30\_\_\_\_\_\_\_\_\_\_\_\_\_ 7/42\_\_\_\_\_\_\_\_

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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 \_\_\_\_\_\_ 2 5 \_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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?

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?

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?

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. 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 $\frac{3}{4}$ $\frac{2}{3}$ x $\frac{2}{5}$

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?

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?

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 $4\frac{1}{2}$ = \_\_\_\_\_\_\_ $\frac{8}{9}$ x $\frac{19}{20}$ = \_\_\_\_\_\_\_\_

$1\frac{3}{5}$ x $20\frac{1}{8}$ = \_\_\_\_\_\_\_ $\frac{8}{9}$ x $4\frac{3}{4}$ = \_\_\_\_\_\_\_\_

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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_