## CHAPTER 1 FRACTIONS



Learn Math Fast

Name: $\qquad$ Date: $\qquad$

## WORKSHEET 2-1

1. Which of the following are fractions? Circle them all.
36
$\frac{2}{5}$
$0 \quad \frac{1}{100}$
2. A dime is $\frac{1}{10}$ of a dollar and a quarter is $\frac{1}{4}$ of a dollar. Can you write a fraction for one penny? $\qquad$
3. What does the number on the bottom of a fraction mean?
4. Give a number that is equal to $\frac{25}{25}$.
5. Write a fraction of a dollar that equals 2 dimes.
6. Write the fraction that represents the picture below. $\qquad$

7. Write a fraction that equals 1. $\qquad$
8. I bought a pack of gum. There were 10 pieces in the pack. I gave my sister 3 of the pieces. Write a fraction that shows how much gum I have left in the pack. $\qquad$
9. Which fraction is bigger? Use a <or >sign.

$$
\frac{1}{4}-\frac{1}{100}
$$

10. Write a fraction that stands for 3 cents. $\qquad$

## WORKSHEET 2-2

Add the following fractions.

1. $\frac{3}{8}+\frac{3}{8}=$
2. $\frac{5}{21}+\frac{9}{21}=$
3. $\frac{1}{4}+\frac{2}{4}=$
4. $\frac{3}{10}+\frac{4}{10}=$
5. $\frac{5}{12}+\frac{4}{12}=$
6. $\frac{1}{5}+\frac{3}{5}=$
7. $\frac{8}{32}+\frac{18}{32}=$
8. $\frac{3}{6}+\frac{3}{6}=$
9. $\frac{4}{16}+\frac{7}{16}=$
10. $\frac{3}{14}+\frac{5}{14}=$
11. $\frac{11}{44}+\frac{11}{44}=$
12. $\frac{3}{27}+\frac{4}{27}=$
13. $\frac{2}{9}+\frac{4}{9}=$
14. $\frac{18}{48}+\frac{16}{48}=$
15. $\frac{4}{15}+\frac{3}{15}=$
16. $\frac{8}{24}+\frac{4}{24}=$
17. $1 / 4+2 / 4=$
18. $3 / 12+4 / 12=$
19. $4 / 10+2 / 10=$
20. $1 / 3+2 / 3=$
21. $5 / 16+3 / 16=$
22. $3 / 8+3 / 8=$
23. $3 / 7+2 / 7=$
24. $6 / 32+8 / 32=$
25. $7 / 14+2 / 14=$

## WORKSHEET 2-3

1. Circle the fraction that is equal to $\frac{1}{2}$.

$$
\begin{array}{llll}
\frac{4}{6} & \frac{6}{6} & \frac{3}{6} & \frac{2}{6}
\end{array}
$$

2. Which fraction is a bigger amount? Use $a<o r>s i g n$.

$$
\frac{9}{10} \quad \frac{3}{10}
$$

3. Write a math problem using fractions that means "four eighths plus three eighths" and then solve it.
4. I have a deck of cards. This deck has 52 cards. I want to separate the cards into 4 equal piles. Write a fraction that shows how much of the deck is in each pile.
5. I have one dozen eggs. One dozen is 12 eggs. I cooked 5 of the eggs. Write a fraction that shows how much of the dozen is left.
6. Look at the fraction below. Which number is the denominator?
7. Look at the fraction above. Which number is the numerator?

## WORKSHEET 2-4

1. $\frac{2}{5}+\frac{3}{10}=$
2. $\frac{3}{8}+\frac{3}{24}=$
3. $\frac{5}{12}+\frac{3}{6}=$
4. $\frac{2}{4}+\frac{3}{8}=$
5. $\frac{5}{22}+\frac{1}{11}=$
6. $\frac{8}{14}+\frac{1}{7}=$
7. $\frac{2}{3}+\frac{1}{4}=$
8. $\frac{1}{5}+\frac{1}{2}=$
9. $\frac{1}{4}+\frac{7}{16}=$
10. $\frac{2}{7}+\frac{2}{3}=$
11. In January, Josh grew three eighths of an inch. In February, he grew one fourth of an inch. How much did he grow all together in those two months? $\qquad$
12. Write and solve a math problem using fractions to add one dime and seven pennies.
13. Carrie ate five-eighths of the pizza. Anita ate six-sixteenths of the pizza. Is there any pizza left?
14. Which fraction is bigger? Use $\mathrm{a}<$ or $>\operatorname{sign} . \quad \frac{2}{100} \quad \frac{7}{8}$

Name $\qquad$ Date

## WORKSHEET 2-4.5

1. $\frac{4}{9}+\frac{2}{6}=$
2. $\frac{1}{6}+\frac{4}{8}=$
3. $\frac{1}{4}+\frac{5}{8}=$
4. $\frac{5}{12}+\frac{3}{8}=$
5. $\frac{2}{3}+\frac{1}{6}=$
6. $\frac{3}{14}+\frac{3}{4}=$
7. Beth ate $\frac{3}{8}$ of the pizza, and Chris ate $\frac{3}{5}$ of it. Is there any pizza left?

## WORKSHEET 2-5

Reduce the following fractions down to the smallest denominator possible.

1. $\frac{3}{21}=-$
2. $\frac{4}{12}=$
3. $\frac{3}{9}=-$
4. $\frac{50}{100}=$
5. $\frac{5}{25}=$
6. $\frac{28}{49}=$

Name $\qquad$ Date

## Worksheet 2-5.5

Add the following fractions. Reduce your answers down to the smallest denominator possible.

1. $\frac{2}{12}+\frac{2}{60}=$
2. $\frac{2}{8}+\frac{4}{6}=$
3. $\frac{7}{25}+\frac{4}{75}=$
4. $\frac{3}{48}+\frac{51}{144}=$
5. $\frac{2}{11}+\frac{11}{121}=$
6. List all the factors of 64 and 72 and then circle the Greatest Common Factors.

64


72
7. List 10 multiples of 6 and 8 and then circle the Least Common Multiple.

6


8


## WORKSHEET 2-6

Find the length of each red line according to these ruler images. Be sure to reduce your answers to the lowest denominator possible.

1.

$\qquad$
3.

4.



## WORKSHEET 2-7

Subtract the following fractions. If the denominators aren't the same, find a common denominator. Make sure to reduce each of your answers down to the smallest denominator possible.

1. $\frac{8}{24}-\frac{2}{24}=$
2. $\frac{9}{36}-\frac{3}{36}=$
3. $\frac{5}{8}-\frac{3}{8}=$
4. $\frac{10}{16}-\frac{2}{16}=$
5. $\frac{12}{32}-\frac{4}{32}=$
6. $\frac{9}{45}-\frac{4}{45}=$
7. $\frac{8}{10}-\frac{1}{3}=$
8. $\frac{3}{4}-\frac{1}{5}=$
9. $\frac{2}{3}-\frac{2}{7}=$
10. $\frac{15}{16}-\frac{3}{4}=$
11. I drew a line with a big marker. The line was $\frac{1}{4}$ inch wide. I drew another line next to it; making it twice as thick. How thick is the line now?
12. We planted grass two weeks ago. On Monday, the grass was $\frac{3}{8}$ inches tall. The following Monday, it measured $\frac{15}{16}$ inches tall. How much did the grass grow during that week?

## WORKSHEET 2-8

Solve the following problems. Reduce your answer to the smallest denominator possible.

1. $\frac{1}{5}+\frac{2}{10}=$
2. $\frac{1}{4}+\frac{6}{8}=$
3. $\frac{5}{6}-\frac{20}{120}=$
4. $\frac{4}{7}-\frac{2}{8}=$
5. $\frac{3}{6}+\frac{4}{8}=$
6. $\frac{2}{4}+\frac{1}{7}=$
7. $\frac{3}{4}-\frac{1}{2}=$
8. $\frac{30}{60}-\frac{20}{40}=$
9. Tina is making some cookies. The recipe calls for one half cup of sugar. She only has one quarter cup of sugar. How much more sugar does she need to make the cookies? $\qquad$
10. Carrie was trying to find one dozen colored eggs. One dozen equals 12 eggs. So far, she has found 9 of them. Write a fraction that shows how much of the dozen she has left to find.

Cross multiply and then use $a<$ or $>$ sign to say which fraction is bigger.
11. $\frac{5}{8} \quad \frac{7}{12}$
12. $\frac{7}{9} \quad \frac{6}{7}$
13. $\frac{3}{4} \frac{6}{8}$

## WORKSHEET 2-9

Multiply or divide the following fractions. Be sure to reduce your answer.

1. $\frac{4}{8} \times \frac{2}{1}=$
2. $\frac{4}{8} \div \frac{2}{1}=$
3. $\frac{1}{10} \times \frac{5}{1}=$
4. $\frac{1}{4} \div \frac{2}{3}=$
5. $\frac{3}{4} \times \frac{3}{7}=$
6. $\frac{2}{6} \div \frac{4}{5}=$
7. I stacked up 4 pieces of wood. Each piece is $\frac{1}{8}$ inch thick. How tall is the stack of wood? (one eighth times four)
8. Divide two fifths by three fourth.
9. Multiply. $\frac{3}{5} \times \frac{1}{4}=$

Next, divide your answer by $\frac{1}{4}$.
Reduce your answer. The new answer should be $\frac{3}{5}$.
To find half of any number, multiply it by $\frac{1}{2}$ or divide by 2 .
10. How much is one half of $\frac{3}{4}$ ?
11. How much is one half of $\frac{7}{8}$ ?
12. Write and solve a math problem using fractions to prove that one half of two is one.

## WORKSHEET 2-10

Convert each mixed number into an improper fraction.

1. $4 \frac{5}{8}$
2. $2 \frac{3}{4}$
3. $1 \frac{7}{10}$
4. $6 \frac{8}{20}$
5. $8 \frac{1}{3}$
6. $5 \frac{6}{9}$
7. $3 \frac{2}{11}$
8. $7 \frac{1}{5}$

Convert each improper fraction into a mixed or whole number.
9. $\frac{10}{8}$
10. $\frac{21}{10}$
11. $\frac{22}{7}$
12. $\frac{26}{5}$
13. $\frac{400}{12}$
14. $\frac{386}{3}$
15. $\frac{200}{10}$
16. $\frac{3}{1}$

## WORKSHEET 2-11

Add the following mixed numbers.

1. $5 \frac{2}{8}+4 \frac{3}{8}=$
2. $2 \frac{6}{12}+6 \frac{5}{12}=$
3. $3 \frac{3}{16}+3 \frac{2}{16}=$
4. $5 \frac{4}{10}+3 \frac{1}{5}=$
5. $4 \frac{7}{8}+3 \frac{1}{16}=$
6. $7 \frac{8}{32}+5 \frac{7}{8}=$
7. $11 \frac{8}{48}+9 \frac{21}{24}=$
8. Jennifer poured $1 \frac{1}{2}$ cups of sand into a bucket. Jessi added $\frac{3}{4}$ cups of sand to the bucket. How much sand is in the bucket now?
9. There are two books stacked up on the table. One book measures $1 \frac{7}{8}$ inches. The other book is $1 \frac{5}{16}$ inches tall. How tall is the stack of two books?
10. Pat kicked the ball $36 \frac{1}{3}$ feet. Lynda kicked the ball $4 \frac{3}{4}$ feet farther. How far did Linda kick the ball?
11. Maggi worked three days last week. On Monday, she worked $5 \frac{1}{2}$ hours. On Wednesday, she worked $6 \frac{3}{4}$ hours. On Friday, she worked $7 \frac{1}{4}$ hours. How many hours did she work last week?
12. When Debbie got her puppy, he was $7 \frac{5}{8}$ inches tall. Since then, he has grown $2 \frac{3}{4}$ inches more. How tall is the puppy now?

## WORKSHEET 2-12

Subtract the following mixed numbers.

1. $7 \frac{3}{8}-5 \frac{1}{8}=$
2. $9 \frac{2}{3}-3 \frac{1}{3}=$
3. $20 \frac{5}{7}-15 \frac{1}{3}=$
4. $\quad 14 \frac{1}{2}-6 \frac{1}{8}=$
5. $11 \frac{9}{16}-6 \frac{1}{2}=$
6. $14 \frac{3}{4}-8 \frac{7}{24}=$
7. $\quad 9 \frac{2}{3}-3 \frac{1}{3}=$
8. $15 \frac{1}{4}-9 \frac{5}{8}=$
9. Yesterday there was $4 \frac{1}{8}$ inches of rain in the rain gauge. Today it measures $5 \frac{3}{16}$ inches of rain. How much did it rain in the last day?
10. Last year our apple tree was $8 \frac{1}{4}$ feet tall. This year the apple tree is $10 \frac{1}{2}$ feet tall. How much did the tree grow during the last year?
11. Linda kicked the ball $44 \frac{5}{12}$ feet. Pat kicked the ball $41 \frac{1}{12}$ feet. How much farther did Linda kick the ball than Pat?
12. Teresa added $1 \frac{1}{3}$ cups of water to the fishbowl. Now the fishbowl has a total of $22 \frac{1}{2}$ cups of water. How much water was in the bowl before Teresa added water?
13. The first song on the $C D$ was $3 \frac{1}{4}$ minutes long. The entire $C D$ was 45 minutes long. How long were the remaining songs?

## WORKSHEET 2-13

Multiply the following mixed numbers.

1. $3 \frac{4}{7} \times 2 \frac{3}{10}=$
2. $2 \frac{9}{10} \times 4 \frac{3}{8}=$
3. $4 \frac{1}{3} \times 3 \frac{7}{8}=$
4. $10 \frac{1}{2} \times 3 \frac{1}{3}=$
5. $8 \times 3 \frac{6}{10}=$ Hint: $8=\frac{8}{1}$

To find one half of any number, multiply it by $\frac{1}{2}$.
6. How long is $\frac{1}{2}$ of $4 \frac{5}{8}$ miles?
7. How much is $\frac{1}{2}$ of $\frac{1}{2}$ ?
8. How much is $\frac{1}{2}$ of $3 \frac{7}{8}$ ?
9. I taped 3 small pieces of paper together to make one long piece of paper. Each piece of paper was $5 \frac{3}{4}$ inches long. How long is the paper now that the 3 pieces are taped together?
10. Sherry wants to put 3 photographs onto 1 page of her scrapbook. Each picture is $2 \frac{1}{8}$ inches long. The page is 7 inches long. Will all 3 pictures fit on 1 page?

## WORKSHEET 2-14

1. $2 \frac{1}{11} \div 4 \frac{5}{8}=$
2. $4 \frac{4}{9} \div 1 \frac{3}{5}=$
3. $2 \frac{1}{12} \div 3 \frac{2}{7}=$
4. $3 \frac{3}{8} \div 5 \frac{2}{9}=$
5. $44 \div \frac{3}{11}=$

To find half of any number, you can divide by 2 , or $\frac{2}{1}$.
6. Brianna wants to hang a picture in the center of the wall. The wall measures $8 \frac{1}{4}$ feet wide. To find the center of the wall, she needs to find the halfway point. What is half of $8 \frac{1}{4}$ feet?
7. Tia is making some cookies. The recipe will make 48 cookies. Tia only wants to make 24 cookies, so she is only using half the amount of each ingredient. The recipe calls for $2 \frac{1}{4}$ cups of flour. How much flour should Tia use?
8. Austin wants to make as many plaster molds as he can. Each mold needs $\frac{1}{4}$ cup of plaster. He has $3 \frac{3}{4}$ cups of plaster. How many molds can he make?

## WORKSHEET 2-15

Multiply and divide the following fractions. Cross cancel whenever possible. When dividing, remember to flip before you cancel.

1. $\frac{8}{16} \times \frac{8}{10}=$
2. $\frac{3}{48} \times \frac{6}{21}=$
3. $\frac{7}{12} \times \frac{6}{10}=$
4. $\frac{2}{10} \times \frac{5}{24}=$
5. $\frac{8}{56} \div \frac{4}{7}=$
6. $\frac{9}{64} \div \frac{3}{8}=$
7. $\frac{5}{42} \div \frac{2}{6}=$
8. $\frac{7}{35} \div \frac{1}{7}=$
9. $\frac{3}{24} \div \frac{3}{6}=$
10. $\frac{9}{27} \div \frac{3}{9}=$

## CHAPTER 1 REVIEW TEST

Solve the following problems. Reduce all answers down to the smalles $\dagger$ denominator. Convert all improper fractions into mixed numbers.

1. $\frac{1}{8}+2 \frac{3}{8}=$
2. $3 \frac{4}{6}+\frac{1}{5}=$
3. $\frac{5}{8}-\frac{1}{16}=$
4. $5 \frac{5}{12}-2 \frac{3}{4}=$
5. $2 \frac{5}{8} \times 3=$
6. $3 \frac{4}{8} \div 4=$
7. I have a stack of baseball cards that measures $\frac{1}{2}$ inch high. Your stack of baseball cards is $\frac{1}{8}$ inch taller than mine. How tall is your stack of cards?
8. Brendon cut a sandwich into 8 pieces. He ate one of the pieces. How much of a sandwich does he have left?
9. There is a recipe for four dozen cookies on the next page. We want to make only two dozen, so we need to cut the recipe in half. Rewrite the amounts needed to make half the recipe.

| $2 \frac{1}{4}$ | Cups of flour |
| :--- | :--- |
| $\frac{3}{4}$ | Cup sugar |
| $\frac{1}{2}$ | Cup brown sugar |
| $\frac{2}{3}$ | Cup butter |
| 2 | Eggs |
| $\frac{1}{1}$ | Teaspoon baking soda |
| $\frac{1}{3}$ | Tablespoon salt |
| $\frac{1}{4}$ | Teaspoon vanilla |

10. A newspaper costs $8 / 10$ of a dollar. How much does it cost?
11. Kathy wants to hang a picture in the center of a wall. The wall measures $373 / 4^{\prime \prime}$ wide. She needs to find the center of the wall. Half of $373 / 4$ " would be the center. How far from the edge of the wall should Kathy measure, to make sure the nail is in the center of the wall?
12. Write a fraction to show what line the arrow is pointing to.

