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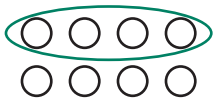
Fractional Part of a Set

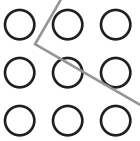
To find a fraction of a whole number, divide by the numerator. Then multiply by the denominator.
Circle the correct number of objects. Complete.

S $\frac{1}{2}$ 

$8 \div \underline{2} = \underline{4}$

$\underline{1} \times \underline{4} = \underline{4}$

$\frac{1}{2}$ of $8 = \underline{4}$

1. $\frac{1}{3}$ 

$9 \div \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\frac{1}{3}$ of $9 = \underline{\quad}$

2. $\frac{1}{2}$ of $10 = \underline{\quad}$

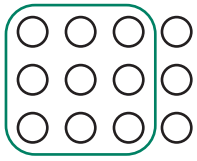
3. $\frac{1}{4}$ of $8 = \underline{\quad}$

4. $\frac{1}{6}$ of $12 = \underline{\quad}$

5. $\frac{1}{3}$ of $18 = \underline{\quad}$

6. $\frac{1}{5}$ of $20 = \underline{\quad}$

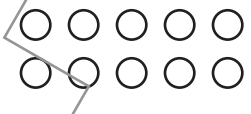
7. $\frac{1}{9}$ of $18 = \underline{\quad}$

S $\frac{3}{4}$ 

$12 \div \underline{4} = \underline{3}$

$\underline{3} \times \underline{3} = \underline{9}$

$\frac{3}{4}$ of $12 = \underline{9}$

8. $\frac{4}{5}$ 

$10 \div \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\frac{4}{5}$ of $10 = \underline{\quad}$

9. $\frac{2}{3}$ of $12 = \underline{\quad}$

10. $\frac{3}{7}$ of $7 = \underline{\quad}$

11. $\frac{3}{8}$ of $8 = \underline{\quad}$

12. $\frac{2}{5}$ of $15 = \underline{\quad}$

13. $\frac{5}{6}$ of $18 = \underline{\quad}$

14. $\frac{3}{4}$ of $24 = \underline{\quad}$

Find the answer to each word problem.

15. A game is on sale for $\frac{1}{2}$ the original price. If it cost $16 before the sale, what was the sale price?

16. Maya lives 15 blocks from school. She rides a bus $\frac{2}{3}$ of the way. How many blocks does she ride a bus?

17. A class has 24 students. If $\frac{1}{3}$ are absent, how many students are absent?

18. A skyscraper has 30 floors. If $\frac{5}{6}$ of the floors are offices, how many floors are offices?

Multiplication of Fractions

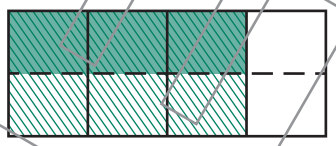
To find a fraction of a fraction, multiply the numerators. Then multiply the denominators.

S What part of this figure is lined? $\frac{3}{4}$

What part of the lined area is shaded? $\frac{1}{2}$

What part of the whole figure is shaded? $\frac{3}{8}$

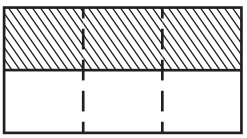
What is $\frac{1}{2}$ of $\frac{3}{4}$? $\frac{3}{8}$



$\frac{1}{2} \times \frac{3}{4} = \frac{1 \times 3}{2 \times 4} = \frac{3}{8}$

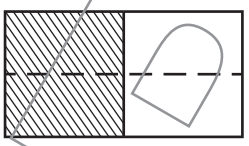
Shade the correct parts of the lined areas.

1. Shade $\frac{1}{3}$.



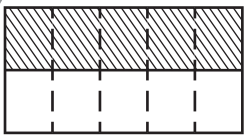
$\frac{1}{3}$ of $\frac{1}{2} =$ —

2. Shade $\frac{1}{2}$.



$\frac{1}{2} \times \frac{1}{2} =$ —

3. Shade $\frac{3}{5}$.



$\frac{3}{5} \times \frac{1}{2} =$ —

Multiply. Write the answer in lowest terms.

S. $\frac{1}{3} \times \frac{2}{5} = \frac{1 \times 2}{3 \times 5} = \frac{2}{15}$

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

5. $\frac{1}{2} \times \frac{3}{8} =$

6. $\frac{3}{5} \times \frac{1}{4} =$

7. $\frac{1}{3} \times \frac{2}{3} =$

8. $\frac{1}{5} \times \frac{1}{8} =$

9. $\frac{4}{7} \times \frac{1}{2} =$

10. $\frac{7}{8} \times \frac{1}{3} =$

Find the answer to each word problem. Write your answer in lowest terms.

11. Phil had $\frac{1}{2}$ gallon of apple cider. He drank $\frac{1}{2}$ of it today. What part of a gallon was left?

12. Bonita used $\frac{3}{4}$ cup of nuts in a recipe. She mixed $\frac{2}{3}$ of that amount into the batter. What part of a cup was mixed in?

Multiplication of Mixed Numbers

To multiply mixed numbers, first change them to improper fractions. Multiply.

S $2\frac{1}{2} \times 3\frac{1}{4} =$

$\frac{5}{2} \times \frac{13}{4} =$

$\frac{5 \times 13}{2 \times 4} =$

$\frac{65}{8} = 8\frac{1}{8}$

1. $3\frac{1}{3} \times 8 =$

2. $1\frac{1}{8} \times 2\frac{2}{3} =$

3. $1\frac{1}{2} \times 2\frac{1}{5} =$

4. $6 \times 1\frac{1}{4} =$

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

6. $4\frac{1}{2} \times 1\frac{1}{2} =$

7. $1\frac{1}{3} \times 18 =$

8. $3\frac{2}{5} \times 3\frac{1}{2} =$

Find the answer to each word problem. Write your answer in lowest terms.

9. Nelson bought 5 packages of ground beef for a cookout. Each weighed $1\frac{3}{5}$ kilograms. How many kilograms did he buy altogether?

10. Zara has $2\frac{3}{4}$ yards of wire. She needs $3\frac{1}{2}$ times as much wire for a project. How many yards of wire does she need?

Problem Solving: Multiplication of Fractions

Find the answer to each word problem. Write your answer in lowest terms.

1. Sofia bought $\frac{1}{2}$ pound of cheese. She gave $\frac{1}{2}$ of it to Umar. How much cheese did she give to Umar?

2. Fred made 7 picnic tables. Each one took him $6\frac{1}{4}$ hours to make. How long did it take him to make all the tables?

3. The trail from the parking lot to Lacey Falls is $\frac{7}{8}$ mile long, and $\frac{2}{3}$ of that distance is uphill. What fraction of a mile is uphill?

4. How much milk does Chantal's family drink in 14 days if they drink $\frac{1}{2}$ gallon every day?

5. A beef roast weighs $3\frac{1}{3}$ pounds. It must cook $\frac{3}{4}$ hour for each pound. How long should it cook?

6. Greg sleeps $\frac{1}{3}$ of the day. There are 24 hours in a day. How many hours does Greg sleep?

7. Brian made $4\frac{1}{2}$ quarts of lemonade. His friends drank $\frac{3}{5}$ of it. How much lemonade did they drink?

8. Ayame spent $2\frac{1}{6}$ hours building a birdhouse. She spent $3\frac{1}{2}$ times as long on a doghouse. How many hours did she spend building a doghouse?