

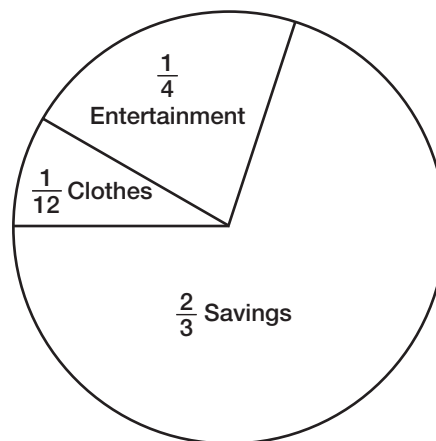
Name _____

Multiply and Divide Fractions

Lesson 9-1

Finding Fractional Parts of a Number

Ysidra tries to save as much money as she can for her college expenses. She earns \$48 each week tutoring history students at the campus learning center. How much does she save each week?



We want to find the amount Ysidra saves each week.

We know Ysidra earns _____ each week.

She saves _____ of her earnings. We need

to find _____ of _____.

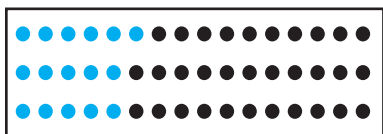
First, we divide the number by the denominator, 3.

Then we multiply the quotient by the numerator, 2.

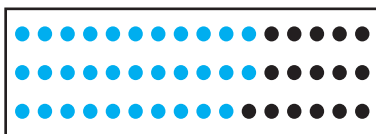
$$\frac{1}{3} \text{ of } 48 \quad 3 \overline{)48}$$

$$\frac{2}{3} \text{ of } 48 \quad 2 \times 16 = \underline{\hspace{2cm}}$$

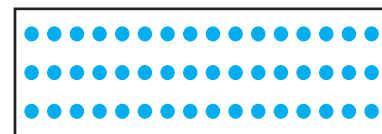
We can draw a picture to help us understand this.



$$\frac{1}{3} \text{ of } 48 = 16$$



$$\frac{2}{3} \text{ of } 48 = 32$$



$$\frac{3}{3} \text{ of } 48 = 48$$

REMEMBER To find a fraction of a number, divide the number by the denominator and multiply that result by the numerator.

Ysidra saves _____ each week.

Getting Started

Write the number for each fractional part.

1. $\frac{1}{8}$ of 16 =

2. $\frac{1}{10}$ of \$100 =

3. $\frac{1}{12}$ of 96 =

Copy and solve.

4. $\frac{3}{4}$ of 24

5. $\frac{5}{6}$ of 96

6. $\frac{9}{16}$ of \$288

Practice

Write the number for each fractional part.

1. $\frac{1}{3}$ of 21 =
2. $\frac{1}{2}$ of 24 =
3. $\frac{4}{7}$ of \$84 =
4. $\frac{5}{6}$ of 36 =
5. $\frac{3}{4}$ of 36 =
6. $\frac{3}{8}$ of 64 =
7. $\frac{4}{5}$ of \$35 =
8. $\frac{2}{3}$ of 21 =
9. $\frac{1}{12}$ of 24 =
10. $\frac{1}{7}$ of \$49 =
11. $\frac{3}{10}$ of 40 =
12. $\frac{7}{8}$ of 56 =

Copy and do.

13. $\frac{2}{3}$ of 42
14. $\frac{1}{8}$ of 80
15. $\frac{3}{7}$ of 84
16. $\frac{4}{5}$ of 75
17. $\frac{1}{12}$ of \$48
18. $\frac{1}{16}$ of 608
19. $\frac{1}{2}$ of 806
20. $\frac{3}{8}$ of \$496
21. $\frac{3}{4}$ of 948
22. $\frac{3}{5}$ of \$1,080
23. $\frac{3}{16}$ of 1,792
24. $\frac{7}{15}$ of 1,905

Problem Solving

Solve each problem.

25. Winston bought $\frac{1}{2}$ dozen macaroni and cheese dinners. If he eats one dinner each day, how many days will his supply of dinners last?
26. It took Dean $\frac{3}{5}$ of an hour to walk home from basketball practice. How many minutes did it take?
27. Jessica bought a package of 36 paper napkins for her party. She used $\frac{2}{3}$ of the napkins. How many were left in the package?
28. Tina has to sell 144 tickets to the student and faculty volleyball game. On Monday, she sold $\frac{3}{8}$ of the tickets. On Tuesday, she sold $\frac{1}{6}$ of the original number of tickets. How many did Tina have left to sell on Wednesday?

Use the ad to solve Problems 29 and 30.

29. What is the sale price of a coat that usually sells for \$87?
30. A pair of shoes costs \$72 and a jacket costs \$116. How much is saved if Paul buys the shoes and jacket on sale?

Sale	
Coats	$\frac{2}{3}$ off
Shoes	$\frac{1}{2}$ off
Jackets	$\frac{2}{4}$ off