

• Multiplying Two-Digit Numbers, Part 1

- When we double a number, we multiply the number by 2.
- To multiply a two-digit number by 2:

Step 1: Multiply the digit in the ones place by 2.

Step 2: Multiply the digit in the tens place by 2.

Practice:

Find each product.

1.
$$\begin{array}{r} 12 \\ \times 2 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 36 \\ \times 2 \\ \hline \end{array}$$

3.
$$\begin{array}{r} \$24 \\ \times 2 \\ \hline \end{array}$$

4.
$$\begin{array}{r} \$16 \\ \times 2 \\ \hline \end{array}$$

5. There are 36 inches in a yard.
How many inches are in two yards? _____
6. One game costs \$28. How much would two games cost? _____

Find each product.

7. 17×2 _____

8. 43×2 _____

9. 49×2 _____

10. 37×2 _____

• Fair Share

- We can use manipulatives and pictures to find half of a number.
- There are two ways to show a number divided into two parts using paper and pencil.

$$18 \div 2 = 9 \quad \text{or} \quad \begin{array}{r} 9 \\ 2 \overline{)18} \end{array}$$

Practice:

1. Draw a total of 16 Xs arranged in 2 equal rows. Then answer questions **a** and **b**.

a. How many Xs are in each row? _____

b. Show two ways to write the division of 16 into 2 parts.

Use counters or draw pictures to help you solve problems **2** and **3**.

2. Twelve students were lined up in two equal rows. How many students were in each row? _____
3. Gail sorted 10 textbooks into two equal stacks. How many textbooks were in each stack? _____

• Finding Half of a Number

- Half of a number is the number divided by 2.
 - We can use a multiplication table to divide by 2.
-

Practice:

1. Use the multiplication table to find half of 22. _____
2. A baseball glove that costs \$16 is on sale for half price. How much does the glove cost on sale? _____
3. The teacher asked Kevin to divide 14 worksheets into two stacks. How many worksheets will be in each half? _____

Use a multiplication table to find each quotient.

4. $8 \div 2$ _____

5. $14 \div 2$ _____

6. $24 \div 2$ _____

7. $10 \div 2$ _____

8. $2 \overline{)22}$

9. $2 \overline{)18}$

10. $2 \overline{)20}$

11. $2 \overline{)12}$

• Multiplying Two Digit Numbers, Part 2

To multiply a two-digit number by a one-digit number:

Step 1: Multiply the digit in the ones place. If the product has two digits, write the ones digit in the ones place of the answer and regroup the tens.

$$\begin{array}{r} 1 \\ 25 \\ \times 3 \\ \hline 75 \end{array}$$

Step 2: Multiply the digit in the tens place. Add any regrouped tens before recording the answer.

Practice:

Find each product.

1. $\begin{array}{r} 14 \\ \times 5 \\ \hline \end{array}$

2. $\begin{array}{r} 43 \\ \times 4 \\ \hline \end{array}$

3. $\begin{array}{r} \$26 \\ \times 3 \\ \hline \end{array}$

4. $\begin{array}{r} \$31 \\ \times 5 \\ \hline \end{array}$

5. $\begin{array}{r} 25 \\ \times 4 \\ \hline \end{array}$

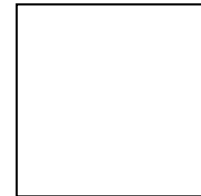
6. $\begin{array}{r} 25 \\ \times 6 \\ \hline \end{array}$

7. $\begin{array}{r} \$42 \\ \times 4 \\ \hline \end{array}$

8. $\begin{array}{r} \$25 \\ \times 2 \\ \hline \end{array}$

9. Michelle has saved \$25 a week for the past 5 weeks. How much money has she saved? _____

10. The walls of Derek's square bedroom are 18 feet long. What is the perimeter of Derek's bedroom? _____



18 feet

• Using Manipulatives to Divide by a One-Digit Number

We can use manipulatives and pictures to model division.

$$\begin{array}{l} \text{X X X X X} \\ \text{X X X X X} \\ \text{X X X X X} \\ \text{X X X X X} \end{array} \quad 20 \div 5 = 4$$

Practice

Use manipulatives or draw pictures to represent each problem. Then write the division using symbols and digits.

1. Twelve books are stacked in three equal piles. How many books are in each pile? _____

2. Fifteen books are put in stacks with 3 books in each stack. How many stacks of books are there? _____

3. Todd has 25 quarters. He made stacks with 5 quarters in each stack. How many stacks did he make? _____

4. Becki cut an 18-inch long ribbon into 6 equal pieces. How long was each piece of ribbon? _____

- **Division Facts**
- **Multiplication and Division Fact Families**

- We learn division facts while we are learning multiplication facts.
- The same three numbers that make a multiplication fact also make a division fact.

$$3 \times 5 = 15 \quad 5 \times 3 = 15 \quad 15 \div 3 = 5 \quad 15 \div 5 = 3$$

- Together, the two multiplication facts and their related division facts make up a **fact family**.

Practice:

Find each quotient.

1. $24 \div 6$ _____ 2. $36 \div 9$ _____ 3. $15 \div 5$ _____

4. $5 \overline{)20}$

5. $4 \overline{)20}$

6. $7 \overline{)28}$

7. Write two multiplication facts and two division facts using the numbers 5, 8, and 40.

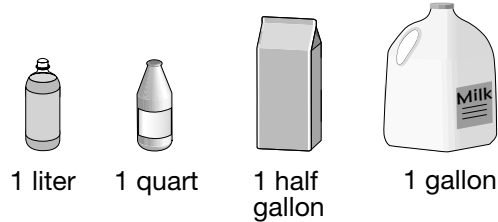
8. Write two multiplication facts and two division facts using the numbers 4, 9, and 36.

9. Find each missing factor:

a. $7 \times \square = 49$ _____ b. $n \times 4 = 32$ _____

• Capacity

- We use the units **ounces, cups, pints, quarts,** and **gallons** to measure liquid in the U.S. Customary System.



- A **liter** is used to measure capacity in the metric system.

Practice:

1. Peggy drank a glass of water. About how much water did she drink?
A 1 pint **B** 1 cup **C** 1 gallon **D** 1 quart
2. Corrine wanted to make one gallon of punch for her party. How many quarts are in one gallon? _____
3. A recipe calls for one pint of milk. How many cups of milk is equal to one pint? _____
4. One cup is 8 ounces. How many ounces is equal to one pint? _____
5. One gallon of milk is equal to how many pints? _____
6. Which is more, one liter or one cup? _____

• Even and Odd Numbers

- If a number can be divided into two equal groups, the number is **even**.
 - If a number cannot be divided into two equal groups, the number is **odd**.
 - Even numbers have a ones digit of 2, 4, 6, 8, or 0.
 - Odd numbers have a ones digit of 1, 3, 5, 7, or 9.
-

Practice:

1. Which of these numbers is even?

A 5

B 11

C 21

D 36

For problems **2–7**, name each number as “even” or “odd.”

2. 27 _____

3. 28 _____

4. 8 _____

5. 15 _____

6. 33 _____

7. 16 _____

8. Can 18 chairs be lined up in two equal rows? Explain your answer. _____

9. Manuel has \$11 in his pocket and \$8 at home.
If he puts all his money together, does he have
an even number or an odd number of dollars? _____

• Using a Multiplication Table to Divide

We can use the multiplication table to find quotients using these steps:

Step 1: Find the row for one factor.

Step 2: Find the product in that factor's row.

Step 3: Trace your finger up the column to find the quotient.

Practice:

Use the multiplication table to find each quotient.

1. $45 \div 9$ _____ 2. $27 \div 3$ _____ 3. $99 \div 11$ _____

4. $56 \div 8$ _____ 5. $72 \div 9$ _____ 6. $28 \div 7$ _____

7. Alex lined 42 chairs up in 7 rows.
How many chairs were in each row? _____

8. Derek placed 35 books in stacks with 5 books
in each stack. How many stacks did Derek make? _____

9. Use a multiplication table to find each quotient.

a. $9\overline{)63}$

b. $4\overline{)36}$

c. $12\overline{)144}$

d. $7\overline{)49}$

e. $7\overline{)63}$

f. $9\overline{)36}$

g. $12\overline{)72}$

h. $7\overline{)63}$

• Equal Groups Problems, Part 2

- We divide if we know the total and want to know the number of groups.
- We divide if we know the total and want to know the number in each group.

$$\text{total} \div \text{number of groups} = \text{number in each group}$$

$$\text{total} \div \text{number in each group} = \text{number of groups}$$

Practice:Use multiplication and division facts to solve problems **1–5**.

1. Lenny is stacking his coins. He has 80 pennies. He puts 10 pennies in each stack. How many stacks will he have? _____
2. Marcus has 28 quarters. If he uses them to make 7 stacks, how many quarters will be in each stack? _____
3. There were 36 students at baseball practice. They were divided into teams with 9 players on each team. How many teams were there? _____
4. Mr. Maguire wants his students to work in 6 equal groups. He has 30 students in his class. How many students will be in each group? _____
5. Kerry ordered a baseball hat online. He received a message saying delivery would take 28 days. How many weeks will he have to wait? _____