



MATHEMATICS 406

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I. PART ONE

Learn Box

I can learn about prime and composite numbers.
I can learn about factors and multiples.
I can learn division by a 1-digit number.

A **prime number** can be divided only by 1 and itself.

2 can be divided only by 1 and 2.

3 can be divided only by 1 and 3.

5 can be divided only by 1 and 5.

0 and 1 are not considered prime numbers.

A **composite number** can be divided by 1, itself, and other numbers.

4 can be divided by 1, 2, 4.

6 can be divided by 1, 2, 3, 6.

8 can be divided by 1, 2, 4, 8.

1.1 What numbers can these composite numbers be divided by?
List all numbers.

a. 9 _____

b. 10 _____

c. 12 _____

$$3 \times 6 = 18$$

Factors are all the numbers that when multiplied produce a given number.

1.2 The factors of ...

a. 9 are 1, 3, 9. Was this your answer to 1.1(a)? _____

b. 10 are 1, 2, 5, 10. Was this your answer to 1.1(b)? _____

c. 12 are 1, 2, 3, 4, 6, 12. Was this your answer to 1.1(c)? _____

A **composite** number can be divided by all of its factors.

1.3 List the factors of the numbers. Tell the number of factors. Write prime or composite.

	Factors	Number	Prime or Composite
a. 13	_____	_____	_____
b. 14	_____	_____	_____
c. 15	_____	_____	_____
d. 16	_____	_____	_____
e. 17	_____	_____	_____
f. 18	_____	_____	_____

1.4 Write all of the digits except 0. _____

1.5 Multiply 2 by each one of the digits and write your answer.

The numbers you have written are called multiples of 2.

Multiples are numbers that result when factors are multiplied together.

1.6 Multiply 3 by each one of the digits.

The numbers you have written are called multiples of 3.

1.7 Write the factors of 6. _____

1.8 Write nine multiples of 6. _____

1.9 Write the factors of 8. _____

1.10 Write nine multiples of 8. _____

1.11 Are 6 and 8 prime or composite numbers? _____

Multiplication and division work together. Multiplication facts and division facts belong to the same family of facts.

You will need
objects for counting

1.12 Write the family of facts for 3, 5, 15.

Let's take a closer look at how we divide 15 by 5.

In division, we start with the first digit on the left in the dividend and then move to the right.



$$\begin{array}{r} 3 \\ 5 \overline{)15} \end{array}$$

We begin by trying to divide 5 into 1.
1 is too small to be a multiple of 5
and so we try 15.
15 is a multiple of 5.
5 divides into 15 three times.

1.13 Divide 11 objects into sets of 4.

- a. How many sets of 4 could you make? _____
- b. How many objects were left over? _____



$$\begin{array}{r} 2 \text{ R } 3 \\ 4 \overline{)11} \\ \underline{8} \\ 3 \end{array}$$

Starting from the left, we look at the first number in the dividend.
1 is too small to be a multiple of 4
and so we try 11.
The largest multiple of 4 less than 11 is 8 ($2 \times 4 = 8$). We say that 4 divides into 11 two times.
The next step is to multiply 2×4 and put the answer below the 11.
Subtracting 8 from 11, we find that we have a remainder of 3.

1.14 Divide 18 objects into sets of 5.

a. How many sets of 5 could you make? _____

b. How many objects were left over? _____



$$\begin{array}{r} 3 \text{ R}3 \\ 5 \overline{)18} \\ \underline{15} \\ 3 \end{array}$$

Starting from the left, we look at the first number in the dividend.

1 is too small to be a multiple of 5 and so we try 18. The largest multiple of 5 less than 18 is 15 ($3 \times 5 = 15$). We say that 5 divides into 18 three times.

The next step is to multiply $3 \times 5 = 15$ and put the answer below the 18.

Subtracting the 15 from 18, we have a remainder of 3.

1.15 Divide 26 objects into sets of 6.

a. How many sets of 6 could you make? _____

b. How many objects were left over? _____



$$\begin{array}{r} 4 \text{ R}2 \\ 6 \overline{)26} \\ \underline{24} \\ 2 \end{array}$$

Follow these steps for division.

1. Divide (from left to right)
2. Multiply
3. Subtract

It is very important to know the multiples of digits to solve division problems.