

Name: _____

Section: _____



**WRITE YOUR NAME
OR NO GRADE!!!**

Homework

This week we will be finishing multiplication and begin with division.

Homework is due on MONDAY November 13

Reminders

Please remember that homework is just a reinforcement of what we do in class. When a scholar completes homework, they are retaining the information. A scholar who does not complete the homework is more likely to forget what was learned in class.

Notes

- Homework is graded for completion. **However, students must show their work.** Students will lose 50% of the points if they turn in homework showing no work, even if the answers are present.
- **I will not accept homework more than four days late.** If the homework is **due on Monday**, the last day to turn it in will be **Friday**. Late homework will have points deducted. Homework will be graded as follows:
 - o On time and complete/work shown: 100%
 - o One day late: deduct 11 %
 - o Two days late: deduct 21 %
 - o Three days late: deduct 31%
 - o Four days late: deduct 41%
 - o Five days or more late: Z

Please feel free to contact me with any questions or concerns at natalie.roman@archimedean.org.

<input type="checkbox"/>	<u>Monday</u>	November 6	Find Common Factors
<input type="checkbox"/>	<u>Tuesday</u>	November 7	Divisibility
<input type="checkbox"/>	<u>Wednesday</u>	November 8	Prime and Composite
<input type="checkbox"/>	<u>Thursday</u>	November 9	Factors and Multiples
<input type="checkbox"/>	<u>Friday</u>	November 10	Reflex math 3 Green Lights per WEEK

SKILL
S80

Find Common Factors

OBJECTIVE Find the common factors of two numbers.

Factors are numbers that multiply to give a product.

Common factors are factors that two or more numbers share.

Find the common factors of 12 and 18.

<p>STEP 1 List the factors of 12.</p>	<p>1, _____, _____, _____, _____, 12</p>
<p>STEP 2 List the factors of 18.</p>	<p>1, _____, _____, _____, _____, 18</p>
<p>STEP 3 List the factors that 12 and 18 have in common.</p>	<p>_____, _____, _____, _____</p>

Try This!

Find the common factors of the pair of numbers.

1. 6 and 14

Factors of 6:

_____, _____, _____, _____

Factors of 14:

_____, _____, _____, _____

Common Factors:

_____, _____

2. 10 and 25

Factors of 10:

_____, _____, _____, _____

Factors of 25:

_____, _____, _____

Common Factors:

_____, _____

Factors and Divisibility

A number is divisible by another number if the quotient is a counting number and the remainder is 0.

You can decide if a number is divisible by 2, 3, 5, 6, or 9 by using divisibility rules instead of dividing. Divisibility rules help you decide if one number is a factor of another.

Is 39 divisible by 2, 3, 5, 6, or 9?

Divisibility Rules

$39 \div 2 = 19 \text{ r}1 \rightarrow$ 39 is not divisible by 2.

The last digit, 9, is not even, so 39 is not divisible by 2.

$39 \div 3 = 13 \text{ r}0 \rightarrow$ 39 is divisible by 3.

The sum of the digits, $3 + 9 = 12$, is divisible by 3, so 39 is divisible by 3.

$39 \div 5 = 7 \text{ r}4 \rightarrow$ 39 is not divisible by 5.

The last digit, 9, is not a 0 or 5, so 39 is not divisible by 5.

$39 \div 6 = 6 \text{ r}3 \rightarrow$ 39 is not divisible by 6.

39 is not divisible by both 2 and 3, so it is not divisible by 6.

$39 \div 9 = 4 \text{ r}3 \rightarrow$ 39 is not divisible by 9.

The sum of the digits, $3 + 9 = 12$, is not divisible by 9, so 39 is not divisible by 9.

39 is divisible by 3.
3 is a factor of 39.

Tell whether 30 is divisible by 2, 3, 5, 6, or 9. Show your work.

1 $30 \div 2$ _____

2 $30 \div 3$ _____

3 $30 \div 5$ _____

4 $30 \div 6$ _____

5 $30 \div 9$ _____

Is 4 a factor of the number? Write yes or no.

6 81

7 24

8 56

Prime and Composite Numbers

A **prime number** is a whole number greater than 1 that has exactly two factors, 1 and the number itself.

A **composite number** is a whole number greater than 1 that has more than two factors.

You can use division to find the factors of a number and tell whether the number is prime or composite.

Tell whether 55 is *prime or composite*.

Use division to find all the numbers that divide into 55 without a remainder. Those numbers are the factors of 55.

$55 \div 1 = 55$, so 1 and 55 are factors.

$55 \div 5 = 11$, so 5 and 11 are factors.

The factors of 55 are 1, 5, 11, and 55.

Because 55 has more than two factors, 55 is a composite number.

Tell whether 61 is *prime or composite*.

Use division to find all the numbers that divide into 61 without a remainder. Those numbers are the factors of 61.

$61 \div 1 = 61$, so 1 and 61 are factors.

There are no other numbers that divide into 61 evenly without a remainder.

The factors of 61 are 1 and 61.

Because 61 has exactly two factors, 61 is a prime number.

Tell whether the number is *prime or composite*.

1 44

Think: Is 44 divisible by any number other than 1 and 44?

2 53

Think: Does 53 have other factors besides 1 and itself?

3 12

4 50

5 24

6 67

7 83

8 27

9 34

10 78

Factors and Multiples

You know that $1 \times 10 = \underline{10}$ and $2 \times 5 = \underline{10}$.

So, 1, 2, 5, and 10 are all **factors** of 10.

You can skip count to find **multiples** of a number:

Count by 1s: 1, 2, 3, 4, 5, 6, 7, 8, 9, **10**, ...

Count by 2s: 2, 4, 6, 8, **10**, 12, ...

Count by 5s: 5, **10**, 15, 20, 25, ...

Count by 10s: **10**, 20, 30, 40, ...

Note that **10** is a multiple of 1, 2, 5, and 10. A number is a multiple of all of its factors.

A **common multiple** is a multiple of two or more numbers. So, 10 is a common multiple of 1, 2, 5, and 10.

1 Multiply to list the next five multiples of 3.

3, _____, _____, _____, _____, _____

2 Multiply to list the next five multiples of 7.

7, _____, _____, _____, _____, _____

Is the number a factor of 8? Write yes or no.

3 2

4 8

5 15

6 20

Is the number a multiple of 4? Write yes or no.

7 2

8 12

9 16

10 18
