

**Course:** Pre-Algebra

**Instructor:** Dr. Fransell Riley (friley@scholeacademy.com)

**Placement Exam Instructions:**

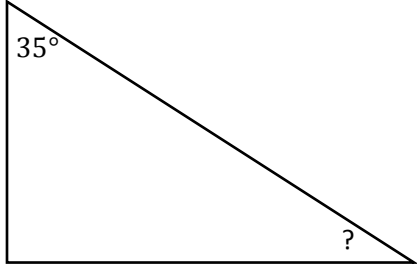

Scholé Academy administers placement exams in order to get to know each student and find the best learning environment for him or her, as we seek to educate our students well and wisely. Students should print and complete this placement exam to confirm proper placement in one of our online math courses. Please show ALL of your work neatly and clearly on the exam (or note paper) and make sure each answer is clearly labeled and legible. The test should be completed independently, without help from outside sources (including notes, text, parents, tutors, etc.). This exam is a tool used to help our instructors get to know their students—perfection is not expected! If you have any questions about the exam content, you are welcome to reach out to the course instructor via email. The completed placement test should be scanned (no photographs, please!) and emailed to the course instructor, who will respond with placement confirmation. Please note that registration is not finalized until the student has submitted a placement exam and received confirmation of proper placement from the course instructor.

### Pre-Algebra Readiness Test

1. Compute:

a. $306 \times 24$	b. $22386 \div 46$
c. $\frac{3}{9} + \frac{4}{9}$	d. $\frac{4}{7} - \frac{2}{7}$
e. $\frac{3}{4} + \frac{5}{6}$	f. $\frac{1}{2} + \frac{1}{6}$
g. $1.936 - 0.47$	h. $\frac{4}{11} \times \frac{5}{8}$
i. $\frac{2}{7} \div \frac{5}{6}$	j. $4\frac{1}{2} - 2\frac{3}{8}$
k. $46.17 \div 2.5$	l. $2.369 + 17.46$

2. Complete the following problems.

<p>a. Find the missing angle</p>  <p>A right-angled triangle is shown. The top-left angle is labeled <math>35^\circ</math>. The bottom-right angle is labeled with a question mark <math>?</math>. The right angle is at the bottom-left corner.</p>	<p>b. Compute the Area c. Compute the Perimeter</p>  <p>An L-shaped polygon is shown. The top horizontal side is labeled "24 inches". The right vertical side is labeled "4 inches". The bottom horizontal side is labeled "9 inches". The left vertical side is labeled "9 inches".</p>
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3. Write twenty-one thousandths as a decimal.

4. What is 21% of 315?

5. Convert  $3\frac{5}{12}$  into an improper fraction.

6. List the factors of 60.

7. What is the least common multiple of 20 and 12?

8. Write an expression for: 24 less than n is 76.

9. If  $5x + 7 = 52$ , what is x?

10. What is the prime factorization of 28?

11. If there are 7 boys and 12 girls in class, what is the ratio of boys to the total number of students?

12. Round the following fractions to 0,  $\frac{1}{2}$ , or 1:

a.  $\frac{7}{8}$

b.  $\frac{3}{8}$

c.  $\frac{1}{8}$

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

13. Draw the following angles:

- a. A right angle is \_\_\_\_\_°.
- b. An \_\_\_\_\_ angle is less than 90°.
- c. An \_\_\_\_\_ angle is greater than 90°.

14. Draw the following triangles:

Acute Triangle	Obtuse Triangle	Right Triangle

### Answers to Pre-Algebra Readiness Test

1. Computations

- a. 7,344
- b. 486.65
- c.  $\frac{7}{9}$
- d.  $\frac{2}{7}$
- e.  $1\frac{7}{12}$
- f.  $\frac{2}{3}$
- g. 1.466
- h.  $\frac{5}{22}$
- i.  $\frac{12}{35}$
- j.  $2\frac{1}{8}$
- k. 18.468
- l. 19.829

2. Computations

- a. 55°
- b. 141 in<sup>2</sup>
- c. 66 inches

3. .021

4. 66.15

5.  $\frac{41}{12}$

6. 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60

7. 60

8.  $n - 24 = 76$

9.  $x = 9$

10. 2x2x7

11.  $\frac{7}{19}$

12. Rounding Fractions

a. 1

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

c. 0

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

13. Angles

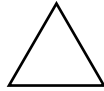
a.  $90^\circ$

b. acute

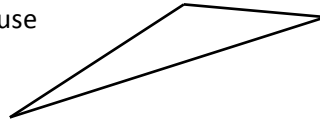
c. obtuse

14. Triangles

a. Acute



b. Obtuse



c. Right

