FRACTIONS WITH GEO SHAPES

Lesson Objective:
- Students will learn simple fractions using EduStic geometric shapes.
- Students will learn fraction relationships between common geometric shapes.

Materials Needed:
- 1 set EduStic geometric shapes from Guess What! game
- 1 laminated storage sheet per student
- 1 wet erase pen per student.
- 1 group of worksheets per student

Time: 20-30 minutes; longer with extension

What fraction of the circles are green?

⬤ ⬤ ⬤ **= 2/3**

Teaching Suggestions:

Students work in groups of two. Each student gets a laminated storage sheet, a set of Guess What! geometric shapes, and worksheets. Students complete the first worksheet. They circle and write simple fractions (1/2, 1/3, 1/4) for shapes. They can represent these fractions on their boards as well. Teacher may demonstrate more problems on whiteboard with different shapes.

The second worksheet is more challenging. It asks students to write fractions based on shape color, size, and other features. Students complete worksheet. They can represent fractions on their boards as well. Teacher may demonstrate similar problems on whiteboard, or ask students to create a fraction of their own with EduStic shapes.

The last two worksheets help students see fraction relationships among EduStic geometric shapes. Fraction relationships of 1/2, 1/3, and 1/4 are explored with squares, rectangles, circles, half circles, rhombuses, and hexagons. Students should layer EduStic geometric pieces on their boards to discover these fraction relationships.

Extension Activity:

For an extra challenge, ask students to find four ways to make a large square with EduStic geometric shapes. One way to do this is by putting two large triangles together. There are at least three other ways to make a large square. Hint: Use rectangles, small squares, and small triangles. If students succeed, ask them to write fractions that describe the relationship of these pieces to the large square.
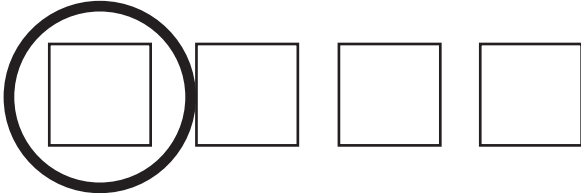
Name: _____   Date: _____

Fractions with EduStic Geo Shapes #1

Directions: Look at the shapes below. Circle the number stated. Write the fraction. Model with EduStic geo shapes on your board if necessary.
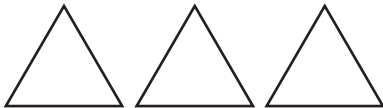
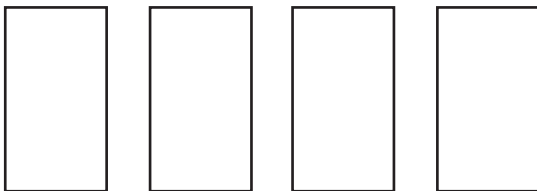**1** **Circle one square and write the fraction.**
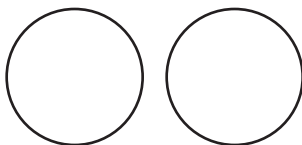
Fraction

1/4

2 **Circle one triangle and write the fraction.**

_____

3 **Circle one rectangle and write the fraction.**

_____

4 **Circle one circle and write the fraction.**

_____

5 **Circle one hexagon and write the fraction.**

_____

6 **Circle one rectangle and write the fraction.**

_____

Name: _____   Date: _____

Fractions with EduStic Geo Shapes #2

Directions: Look at the shapes below. Write the fraction amount.
Fraction may be based on shape, color, size, other features.
Model with EduStic geo shapes on your board if necessary.

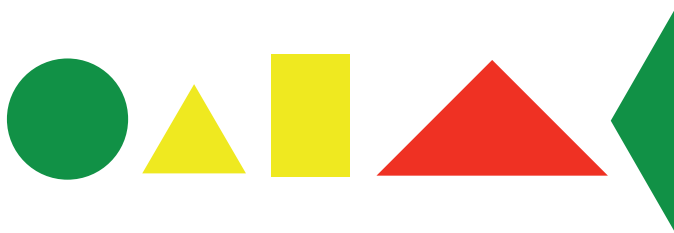**1** **What fraction of the squares are blue?**   **Fraction**

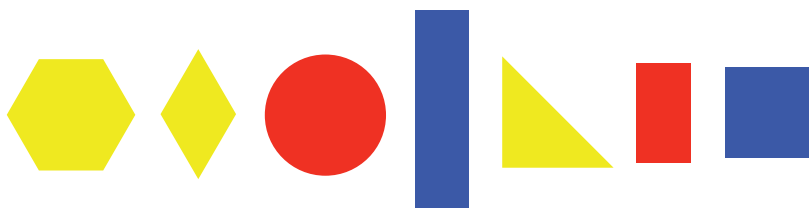$$\frac{1}{2}$$

2 **What fraction of the triangles are big?**

_____

3 **What fraction of the rectangles are red?**

_____

4 **What fraction of the shapes are triangles?**

_____

5 **What fraction of the shapes have exactly four sides?**

_____

Name: _____   Date: _____

Fractions with EduStic Geo Shapes: 1/2

Directions: Use EduStic geo shapes to find 1/2. Look at the shape on the page. Find the EduStic geo shape that is 1/2 of that shape.   Represent answer on your boards. Draw the answer on the right. Some problems have more than one answer.

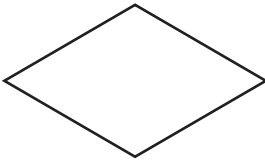**1**   **What is 1/2 of this shape?**   **Answer #1**   **Answer #2**
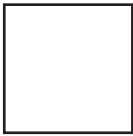
2   **What is 1/2 of this shape?**   **Answer #1**   **Answer #2**

3   **What is 1/2 of this shape?**   **Answer #1**   **Answer #2**

4   **What is 1/2 of this shape?**   **Answer #1**   **Answer #2**

5   **What is 1/2 of this shape?**   **Answer**
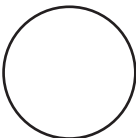
Name: _____   Date: _____

Fractions with EduStic Geo Shapes: 1/3, 1/4, 1/6

Directions: Use EduStic geo shapes to find 1/3 and 1/4. Look at the shape on the page. Find the EduStic geo shape that is 1/3 or 1/4 of that shape.   Represent answer on your boards. Draw the answer on the right. Some problems have more than one answer.

1 What is 1/3 of this shape?   **Answer**
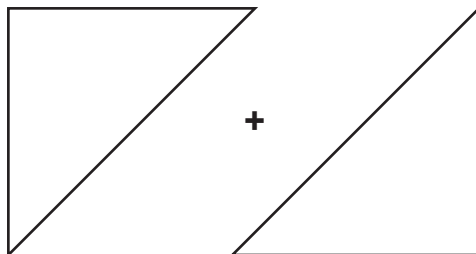
2 What is 1/4 of this shape?   **Answer #1**   **Answer #2**

3 What is 1/4 of this new shape?   **Answer #1**   **Answer #2**

+
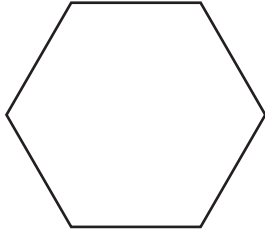
4 What is 1/6 of this shape?   **Answer #1**   **Answer #2**
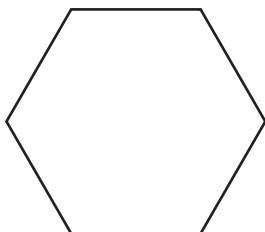
Name: _____   Date: _____

Fractions with EduStic Geo Shapes #1
Answer Key

Directions: Look at the shapes below. Circle the number stated.   Write the fraction. Model with EduStic geo shapes on your board if necessary.
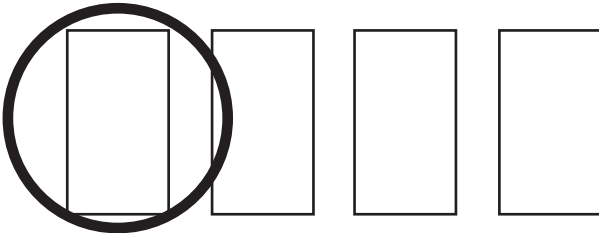
1 **Circle one square and write the fraction.**   **Fraction**

1/4
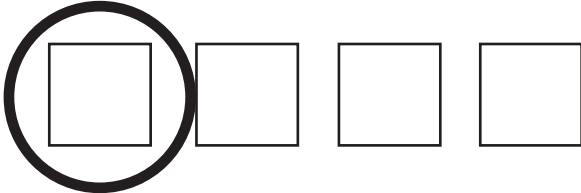
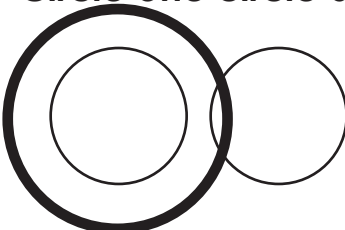**2** **Circle one triangle and write the fraction.**

1/3

3 **Circle one rectangle and write the fraction.**

1/4

4 **Circle one circle and write the fraction.**

1/2

5 **Circle one hexagon and write the fraction.**

1/3

6 **Circle one rectangle and write the fraction.**

1/2

Name: _____   Date: _____

Fractions with EduStic Geo Shapes #2
Answer Key

Directions: Look at the shapes below. Write the fraction amount.
Fraction may be based on shape, color, size, other features.
Model with EduStic geo shapes on your board if necessary.

1 **What fraction of the squares are blue?**   **Fraction**

$1/2$
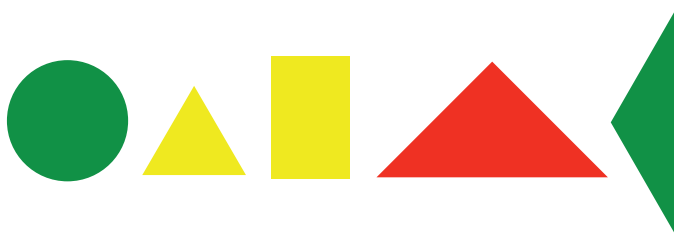
2 **What fraction of the triangles are big?**
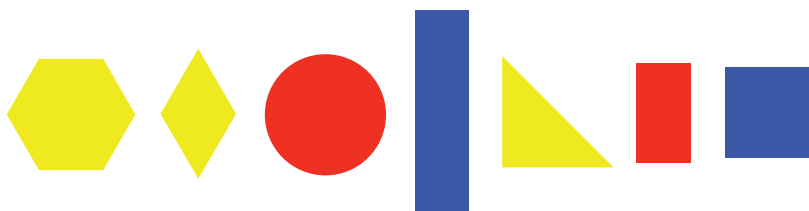

$3/5$

3 **What fraction of the rectangles are red?**
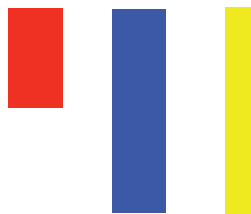
$1/3$

4 **What fraction of the shapes are triangles?**

$3/5$

5 **What fraction of the shapes have exactly four sides?**

$4/7$

Name: _____ Date: _____

Fractions with EduStic Geo Shapes: 1/2 Answer Key

Directions: Use EduStic geo shapes to find 1/2. Look at the shape on the page. Find the EduStic geo shape that is 1/2 of that shape. Represent answer on your boards. Draw the answer on the right. Some problems have more than one answer.
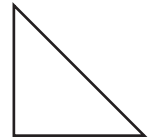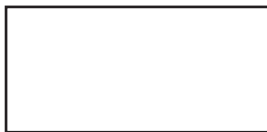
1 **What is 1/2 of this shape?**   **Answer #1**   **Answer #2**
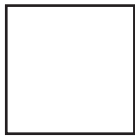
2 **What is 1/2 of this shape?**   **Answer #1**   **Answer #2**

3 **What is 1/2 of this shape?**   **Answer #1**   **Answer #2**
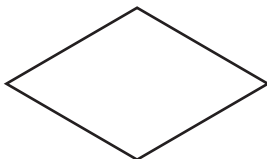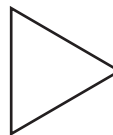
4 **What is 1/2 of this shape?**   **Answer #1**   **Answer #2**
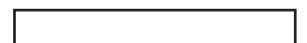
5 **What is 1/2 of this shape?**   **Answer**
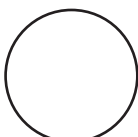
Name: _____   Date: _____

Fractions with EduStic Geo Shapes: 1/3, 1/4, 1/6 Answer Key

Directions: Use EduStic geo shapes to find 1/3 and 1/4. Look at the shape on the page. Find the EduStic geo shape that is 1/3 or 1/4 of that shape.   Represent answer on your boards. Draw the answer on the right. Some problems have more than one answer.

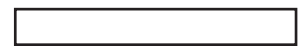**① What is 1/3 of this shape?**   **Answer**

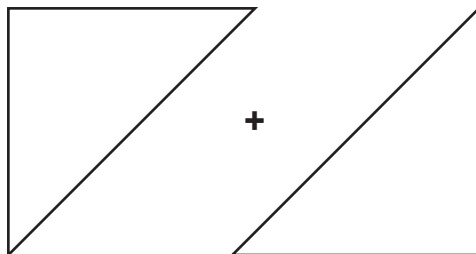**② What is 1/4 of this shape?**   **Answer #1**   **Answer #2**

③ What is 1/4 of this new shape?   **Answer #1**   **Answer #2**

+

④ What is 1/6 of this shape?   **Answer #1**   **Answer #2**