fraction tasks

LEARNING GOAL

The goal of this activity is for students to recognize a fraction as a number that represents part of a whole. Students will use manipulatives to explore what makes an equal part and how the parts of a fraction relate to the whole.

SUGGESTED USE

Whole Group	Small Group	Partners	Independent
○	☑	☑	○

This activity is designed to be used when students just begin to work with grade level fraction concepts. Students will build their understanding of what a fraction is, giving them the foundation they need to understand equivalent fractions later on.

MATERIALS & PREP

- **Task cards (3 sets)**
- **Student work pages**
- **Pattern blocks**
- **Two-color counters**
- **Blank fraction tiles**

Students will rotate between stations to work on 3 sets of task cards (fractions as area models, set models, and length models) . Prepare enough stations so that 2-4 students are working at a station at one time. Each station needs a set of cards with 1-2 sets of the corresponding manipulative. Each student needs the work pages to record their thinking.

DIRECTIONS

In this activity, students will rotate around the room in pairs or small groups to work with three different representations of fractions. It doesn't matter which order they complete the stations in, however it is important to note that students will likely have the most familiarity with the area model (pattern block) representation of fractions.

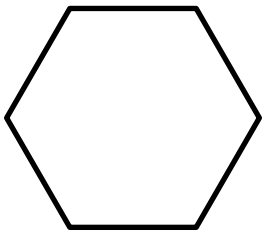
Students will read the first task card at their station and use their manipulatives to work through the problem(s) on the card. Each student will record their thinking on their student work page. Since the task cards within each set progress in difficulty, students should complete them in order. Once each group member has worked through all of the task cards at a station, they can move on to a new station to work with a different set of cards.

To close the activity, invite students to share any discoveries that they made. Consider recording students' take-aways on an anchor chart for them to refer to as they continue learning about fractions.

1 FRACTION TASKS: AREA

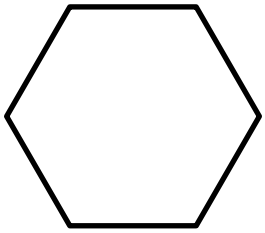
If the hexagon is 1 whole, shade in which shape is...

- ☑ ½ of the hexagon?
- ☑ ⅓ of the hexagon?
- ☑ ⅔ of the hexagon?



2 FRACTION TASKS: AREA

A. How many triangles would you need to cover one of the hexagon blocks?



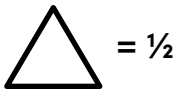
B. What fraction would you name each of those triangles?

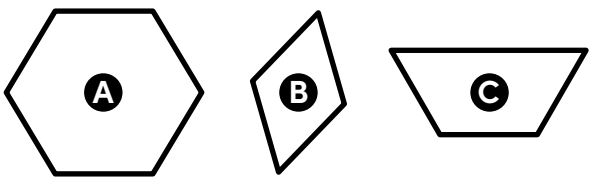
3 FRACTION TASKS: AREA

If the trapezoid is one whole and you used the triangles to cover it, would the triangles still have the same value as they did when the hexagon was one whole? Explain.

4 FRACTION TASKS: AREA

If the triangle is ½, which shape is the whole? Show and explain how you know.



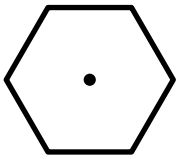
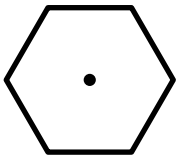
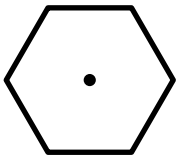


NAME: _____

FRACTION TASKS: AREA MODELS

1.

If the hexagon is 1 whole, shade in:

- ☐ ½ of the hexagon? 
- ☐ ⅓ of the hexagon? 
- ☐ ⅔ of the hexagon? 

2.

A. _____

B. _____

3.

_____

_____

_____

_____

_____

4.

_____

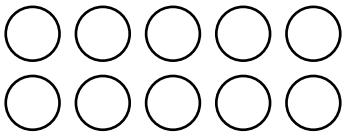
_____

_____

_____

1 FRACTION TASKS: SET

Get 10 counters and set them out so that they are all **red**.



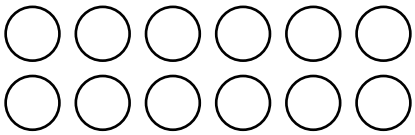
This is one whole set.

What would the set look like if:

- ½ of the set is yellow?
- ⅕ of the set is yellow?
- 1/10 of the set is yellow?

2 FRACTION TASKS: SET

Get 12 counters and set them out so that they are all **red**.



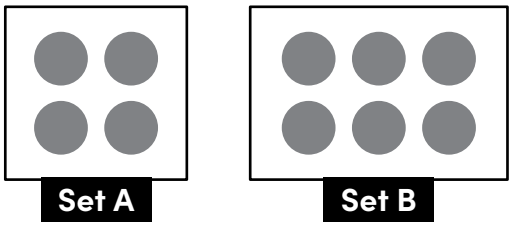
This is one whole set.

What would the set look like if:

- ⅓ of the set is yellow?
- ⅔ of the set is yellow?
- ⅗ of the set is yellow?

3 FRACTION TASKS: SET

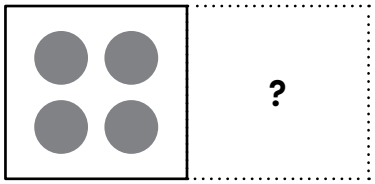
Use your counters to find ½ of each set below.



Why is ½ of set A different than ½ of set B?

4 FRACTION TASKS: SET

Imagine that the counters below are ⅓ of a complete set. How many counters are in the whole set? Show or explain your thinking.



NAME: _____

FRACTION TASKS: SET MODELS

1.

Color or mark the counters that should be yellow:

☑ ½ ○○○○○ ○○○○○

☑ ⅕ ○○○○○ ○○○○○

☑ 1/10 ○○○○○ ○○○○○

2.

Color or mark the counters that should be yellow:

☑ ⅓ ○○○○○○ ○○○○○○

☑ ⅔ ○○○○○○ ○○○○○○

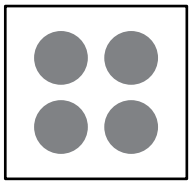
☑ ⅗ ○○○○○○ ○○○○○○

3.

½ of Set A _____

½ of Set B _____

4.



1 FRACTION TASKS: LENGTH

Get out your longest fraction tile. If this fraction tile is one whole, find:

1 Whole

- ☑ ½ of the length
- ☑ ¼ of the length
- ☑ ⅛ of the length

2 FRACTION TASKS: LENGTH

Get out your longest fraction tile. If this fraction tile is one whole, find:

1 Whole

- ☑ ⅓ of the length
- ☑ ⅙ of the length
- ☑ ⅚ of the length

3 FRACTION TASKS: LENGTH

1 Whole

Ⓐ

A. What fraction of the whole is fraction tile A? Explain or show your thinking.

B. If you had 3 of those tiles, what fraction would you have?

4 FRACTION TASKS: LENGTH

If this fraction tile is ⅓ of the longest fraction tile, what does the longest fraction tile look like?

If this fraction tile is ⅔ of the longest fraction tile, what does the longest fraction tile look like?

NAME: _____

FRACTION TASKS: LENGTH MODELS

1.

If the fraction tile is the whole, show:

☑ ½

☑ ¼

☑ ⅛

2.

If the fraction tile is the whole, show:

☑ ⅓

☑ ⅙

☑ ⅚

3.

A. _____

B. _____

4.

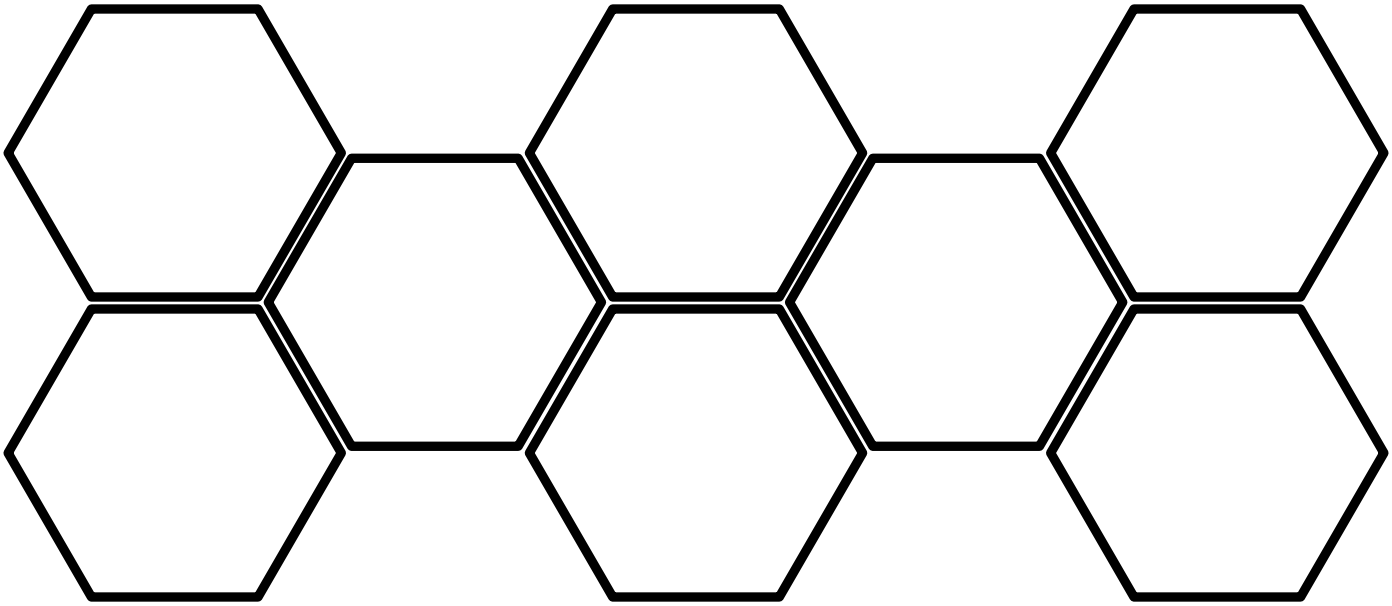
Draw the rest of the fraction tile to show what the whole would look like.

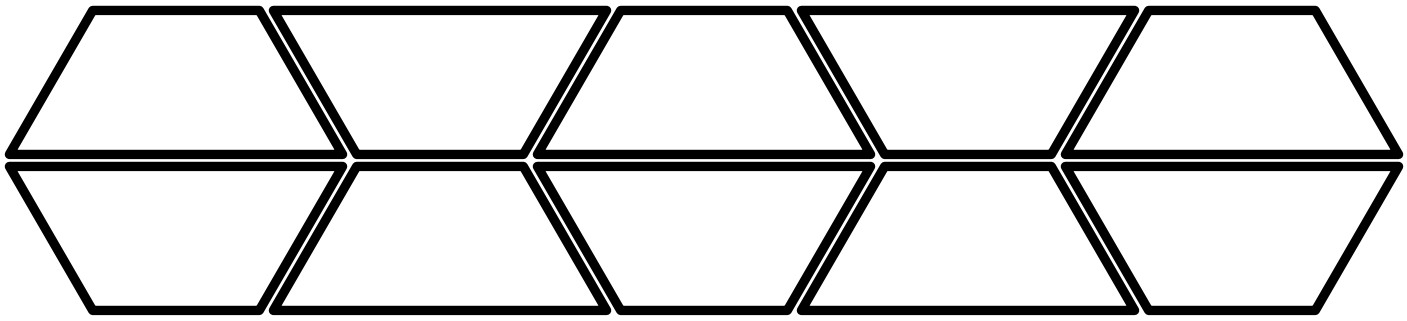
⅓

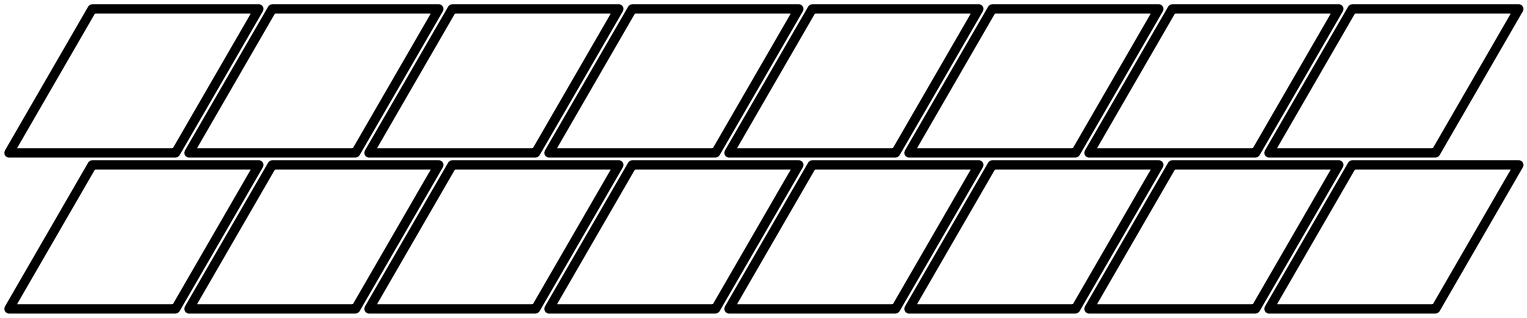
⅔

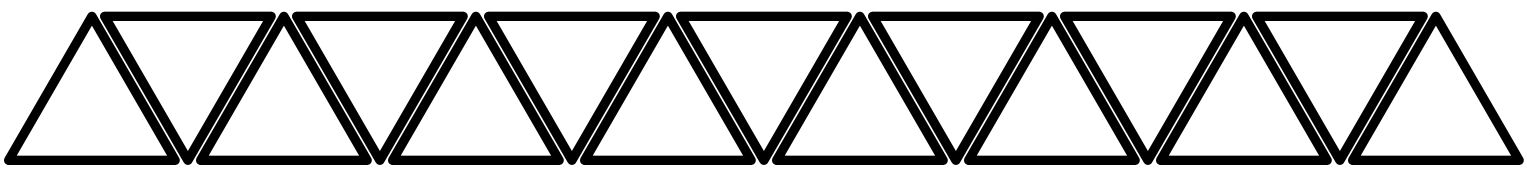
pattern blocks

Print the pattern blocks on thick cardstock.
Laminate the page then cut each pattern block out.



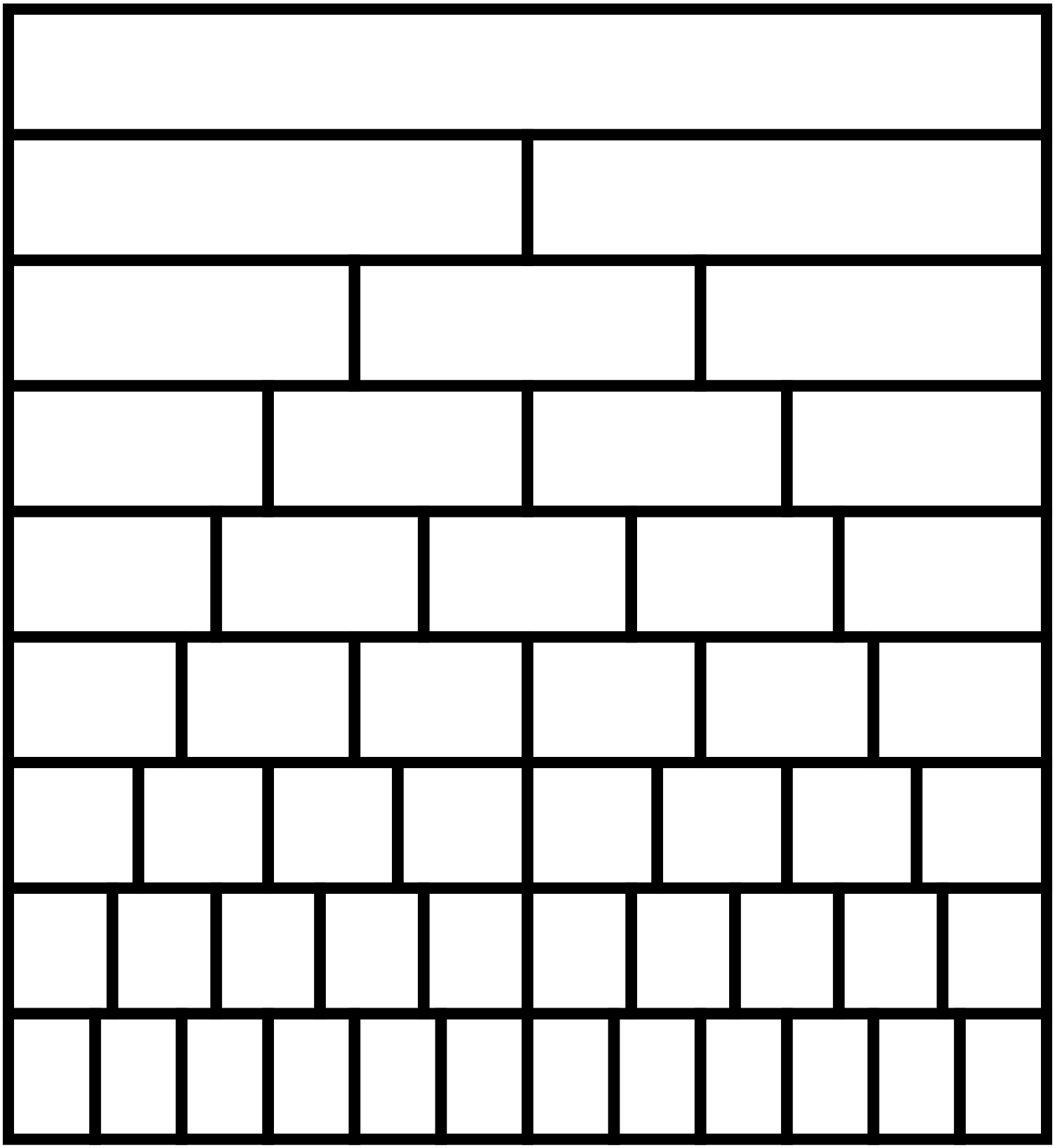






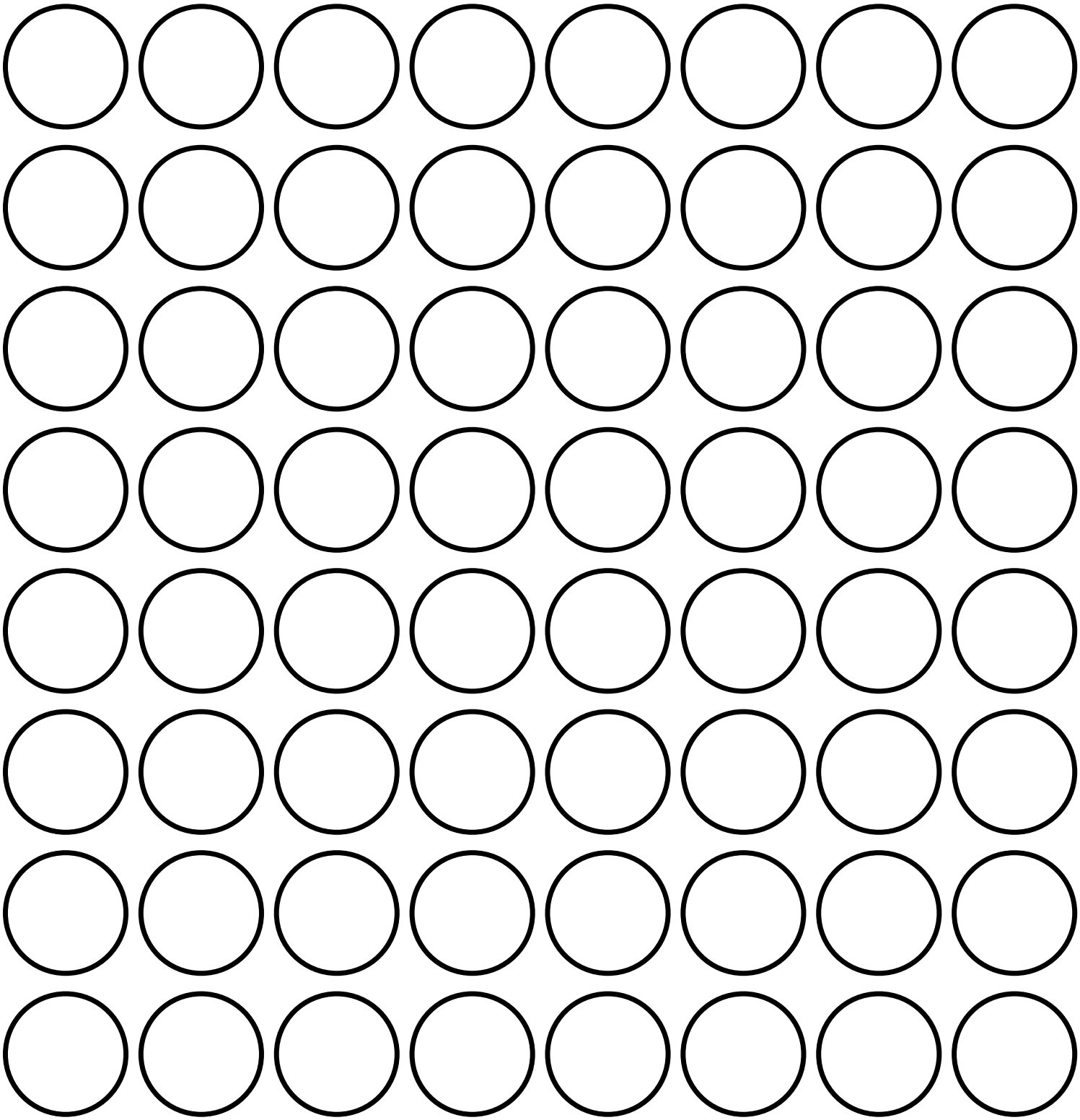
fraction tiles

Print the fraction tiles on thick cardstock.
Laminate the page then cut each fraction tile out.



two-color counters

Print these two red and yellow two-color counters pages **front and back** on thick cardstock. Laminate the page then cut each counter out.



two-color counters

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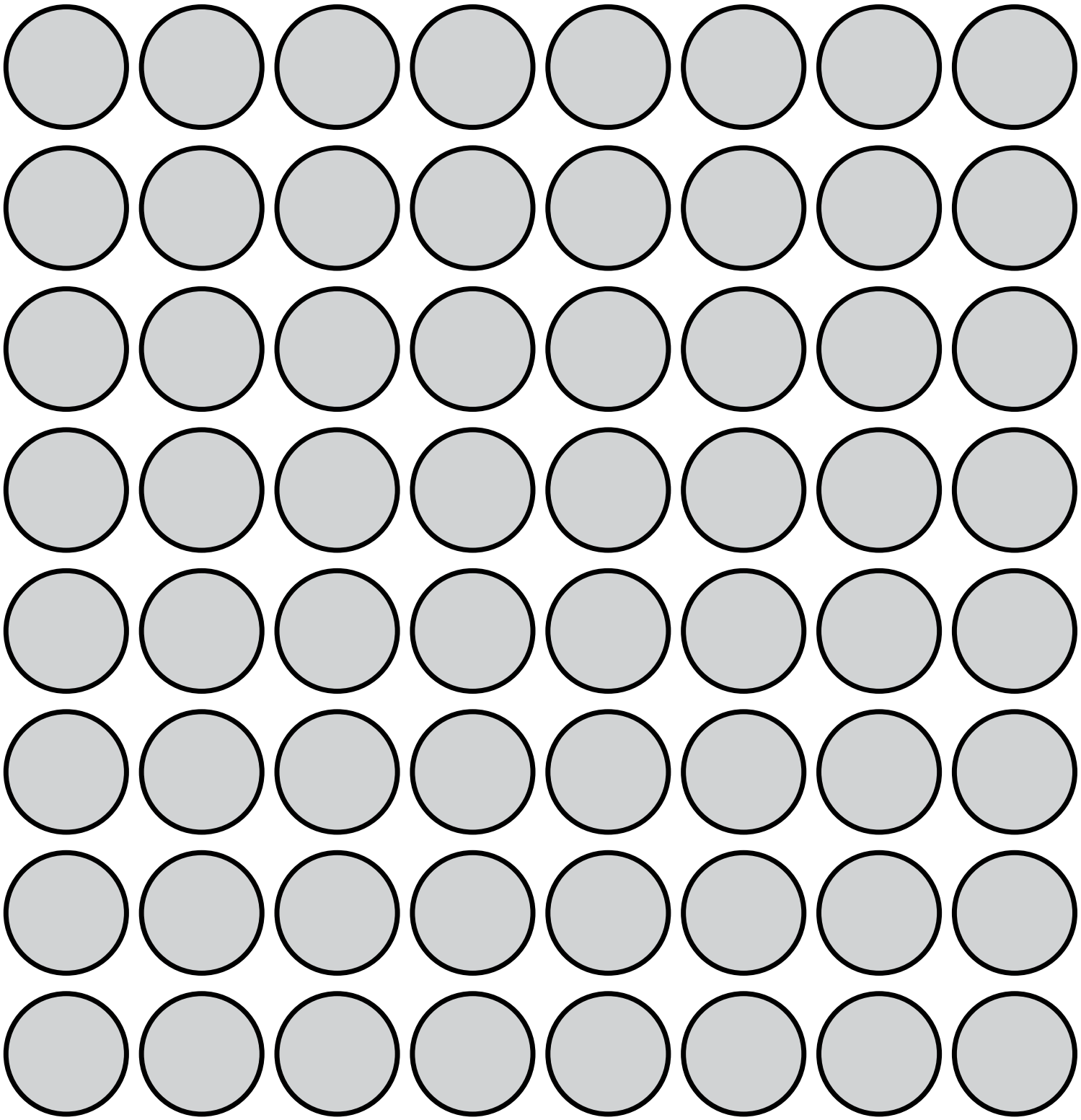


ANSWER KEY

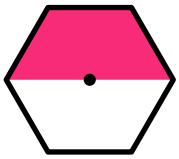
NAME: _____

FRACTION TASKS: AREA MODELS

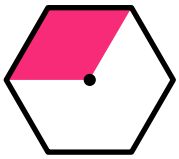
1.

If the hexagon is 1 whole, shade in:

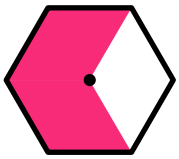
☑ ½ of the hexagon?



☑ ⅓ of the hexagon?



☑ ⅔ of the hexagon?



2.

A. six

B. ⅙

3.

No. If the trapezoid is the whole, each triangle would be worth ⅓.

4.

The rhombus (B) would be the whole.

ANSWER KEY

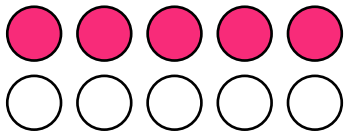
NAME: _____

FRACTION TASKS: SET MODELS

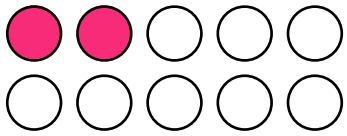
1.

Color or mark the counters that should be yellow:

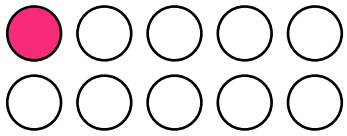
☑ ½



☑ ⅕



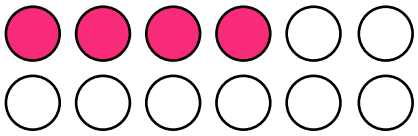
☑ 1/10



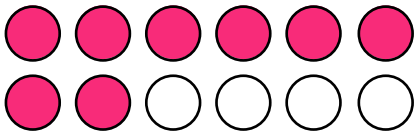
2.

Color or mark the counters that should be yellow:

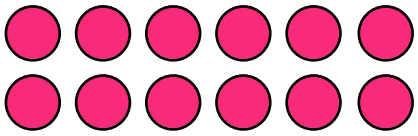
☑ ⅓



☑ ⅔



☑ ⅗



3.

½ of Set A

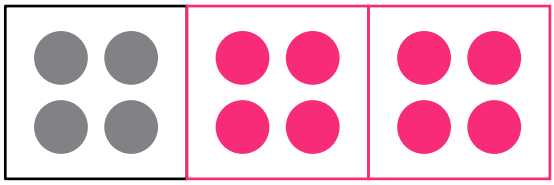
2

½ of Set B

3

They do not have the same total number of counters, so making ½ of each is different. Set B has more total counters in it.

4.



If it is ⅓ of the complete set, then you can make 3 groups including Set A to find the total of 12.

ANSWER KEY

NAME: _____

FRACTION TASKS: LENGTH MODELS

1.

If the fraction tile is the whole, show:

☑ ½

☑ ¼

☑ ⅛

2.

If the fraction tile is the whole, show:

☑ ⅓

☑ ⅙

☑ ⅚

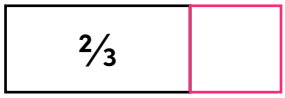
3.

A. _____ 1/10

B. _____ 3/10

4.

Draw the rest of the fraction tile to show what the whole would look like.



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