



# Rich Learning Tasks

Dr. Marian Small



Problem Solving and Reasoning

Name: \_\_\_\_\_

# Walking Forwards and Backwards

Choose a place on the number line.

Decide how many steps to move each time:

Go forward \_\_\_\_\_ steps.

Then back \_\_\_\_\_ steps.

Then forward \_\_\_\_\_ steps.

Then back \_\_\_\_\_ steps.

You have to land where you started.

Show your journey on the number line.

Did your number get bigger or smaller?

Have another go.



Name: \_\_\_\_\_

Number

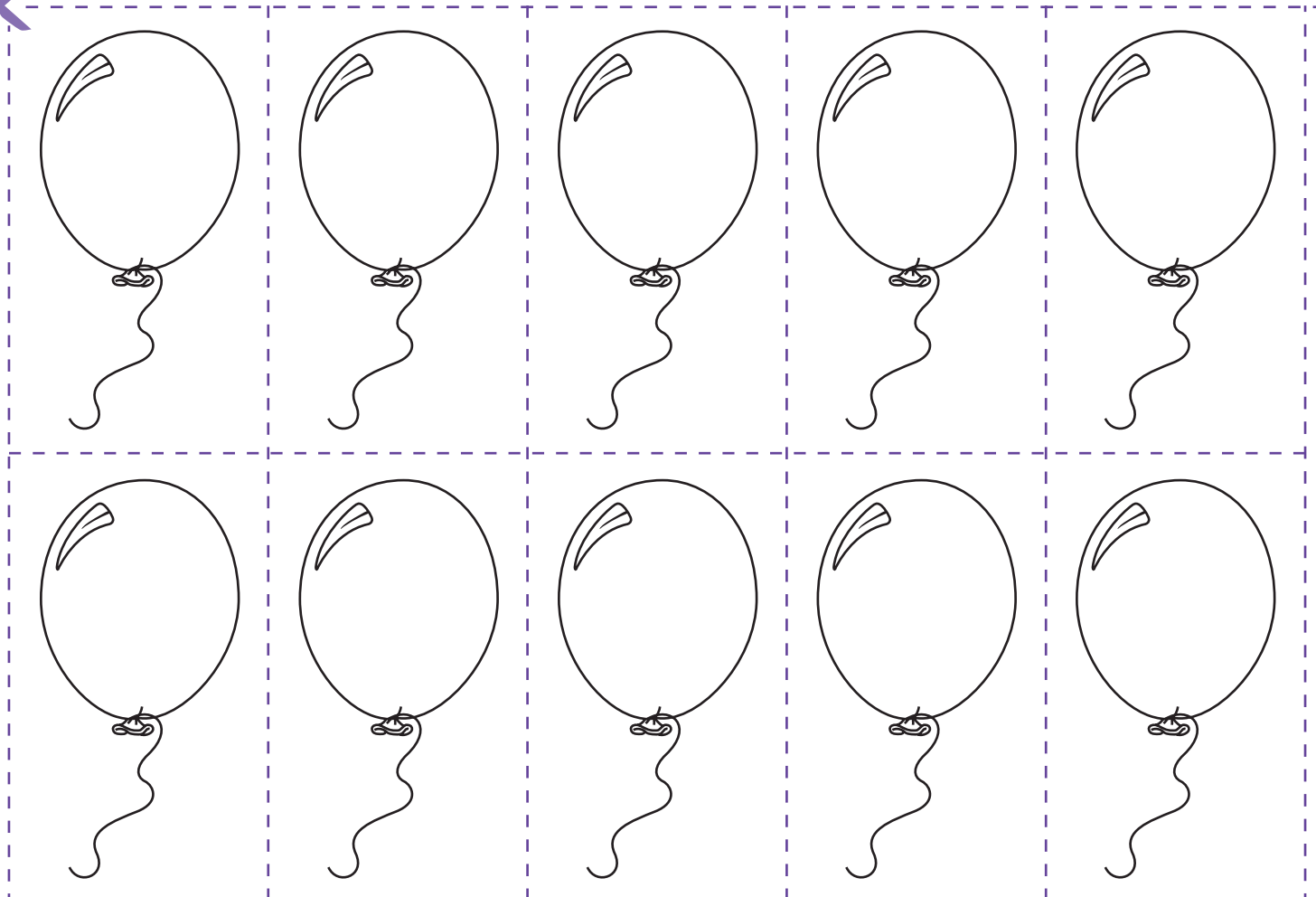
# Ten Balloons

Colour some balloons red, some blue, and some green, using these rules:

- Most of the balloons have to be red.
- The smallest number of balloons have to be green.

State how many of each colour balloon you have created.

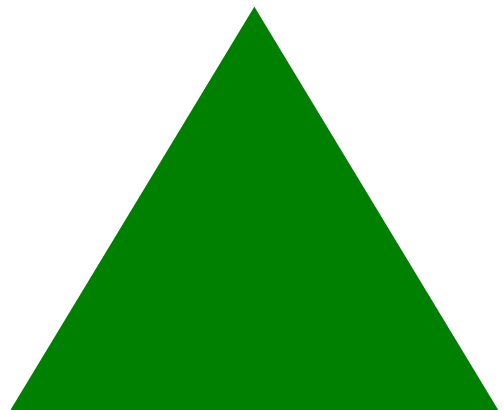
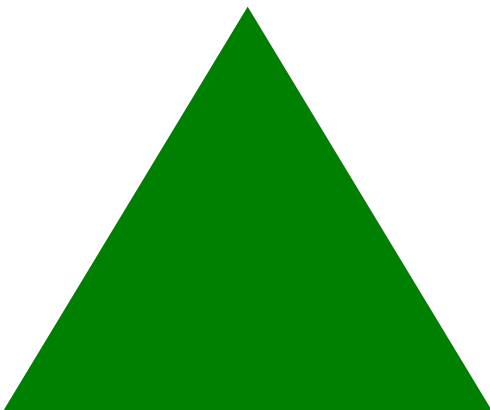
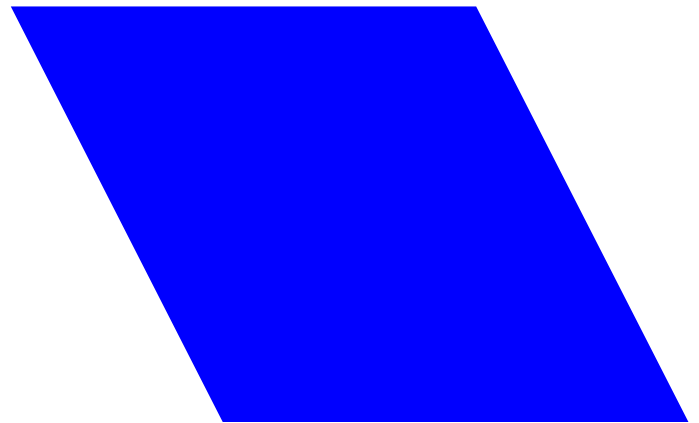
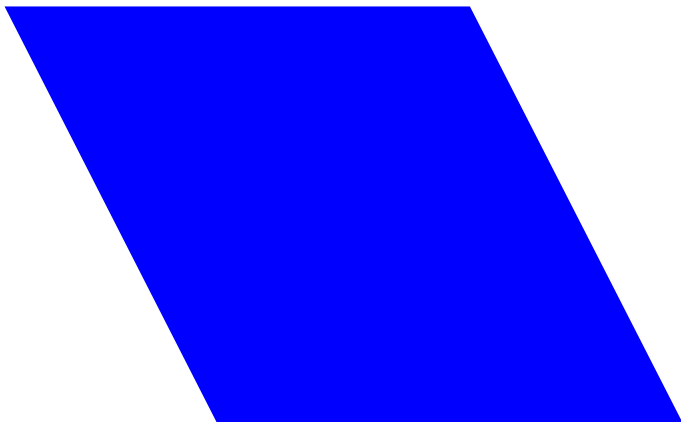
Find as many answers as you can.



Name: \_\_\_\_\_

# Blue and Green Shapes

What shapes or designs can you make using 2 blue and 2 green shapes?



Name:

## Cut it Up

Predict which of these combinations would be possible if you cut a rectangle into 3 shapes.

- 3 squares
- 1 triangle and 2 rectangles
- 2 triangles and 1 rectangle
- 3 triangles.

Check your predictions.

Explore whether there are any other ways of doing it.



Name:

# Baby Steps and Giant Steps

How big do you think a giant step is?

How big do you think a baby step is?

How many baby steps make a giant step?

Show your thinking.

Name: \_\_\_\_\_

# Folding Lines

Draw a red line.

Now draw a blue line that is slightly longer than the red line if you fold it in half.



Name: \_\_\_\_\_

# More Blue

Colour the shapes. Make different patterns that have more blue shapes than green ones.

Which of your patterns do you think are most alike?

Can you make your pattern a repeating pattern?

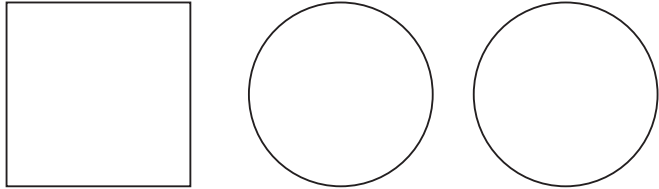





Name:

# Lots of Patterns

These three shapes are the beginning of a pattern.  
Draw lots of different ways the pattern could continue.

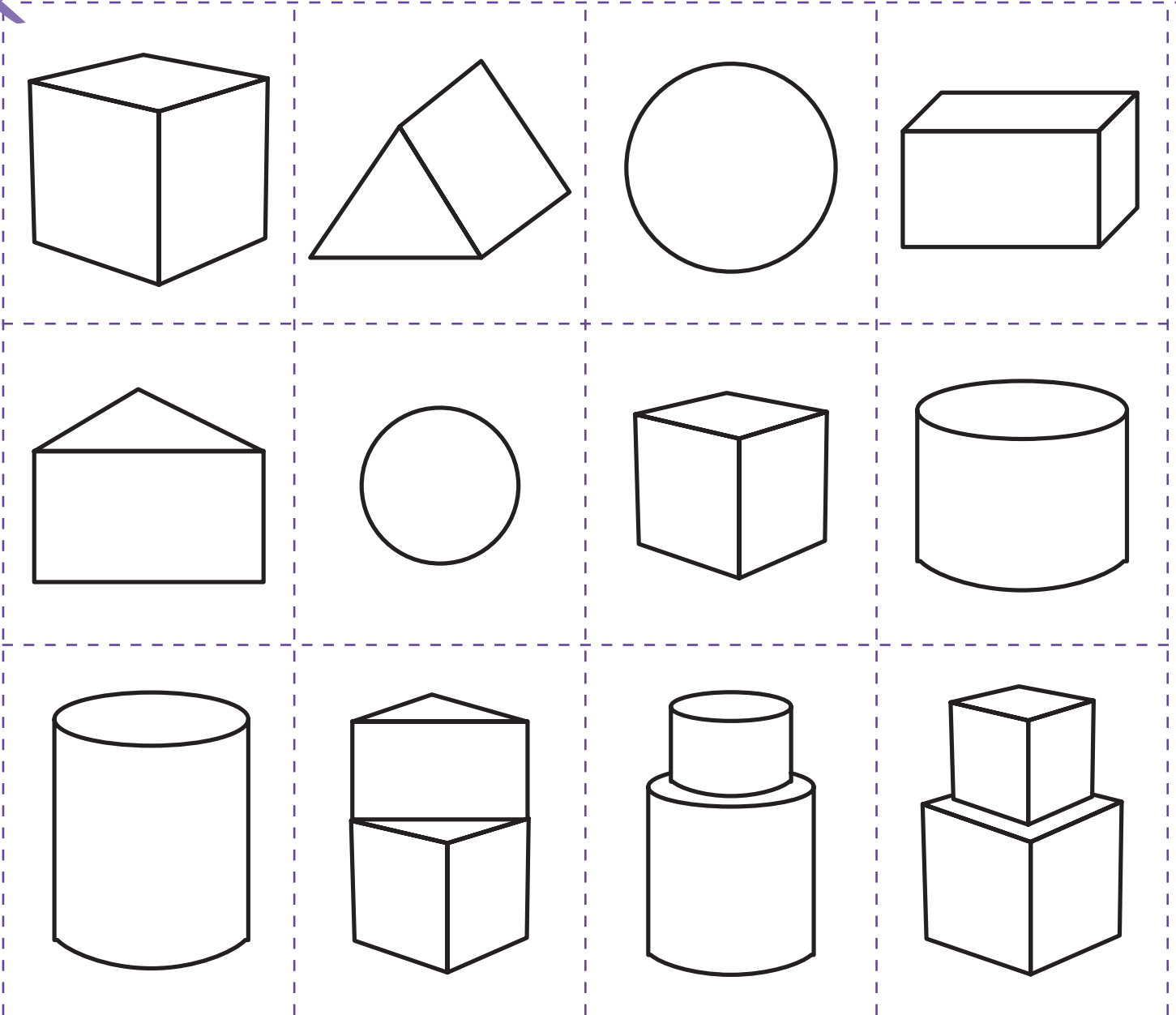


Name: \_\_\_\_\_

# Who Belongs Together?

Cut out each of the shapes. Choose 4 that you think belong together and put them in a group. Choose a shape that you think does not belong with them. Explain why it doesn't belong.

Repeat this again with 4 different shapes and one that doesn't belong. Use different reasons for why they belong together that you used for the first 4 shapes.



Name: \_\_\_\_\_

Data

# Split Them Up

How can you sort the clothes into three groups that go together so that one group includes 4 things, and the other two include 3 things each?

Is there more than one way to do this?

