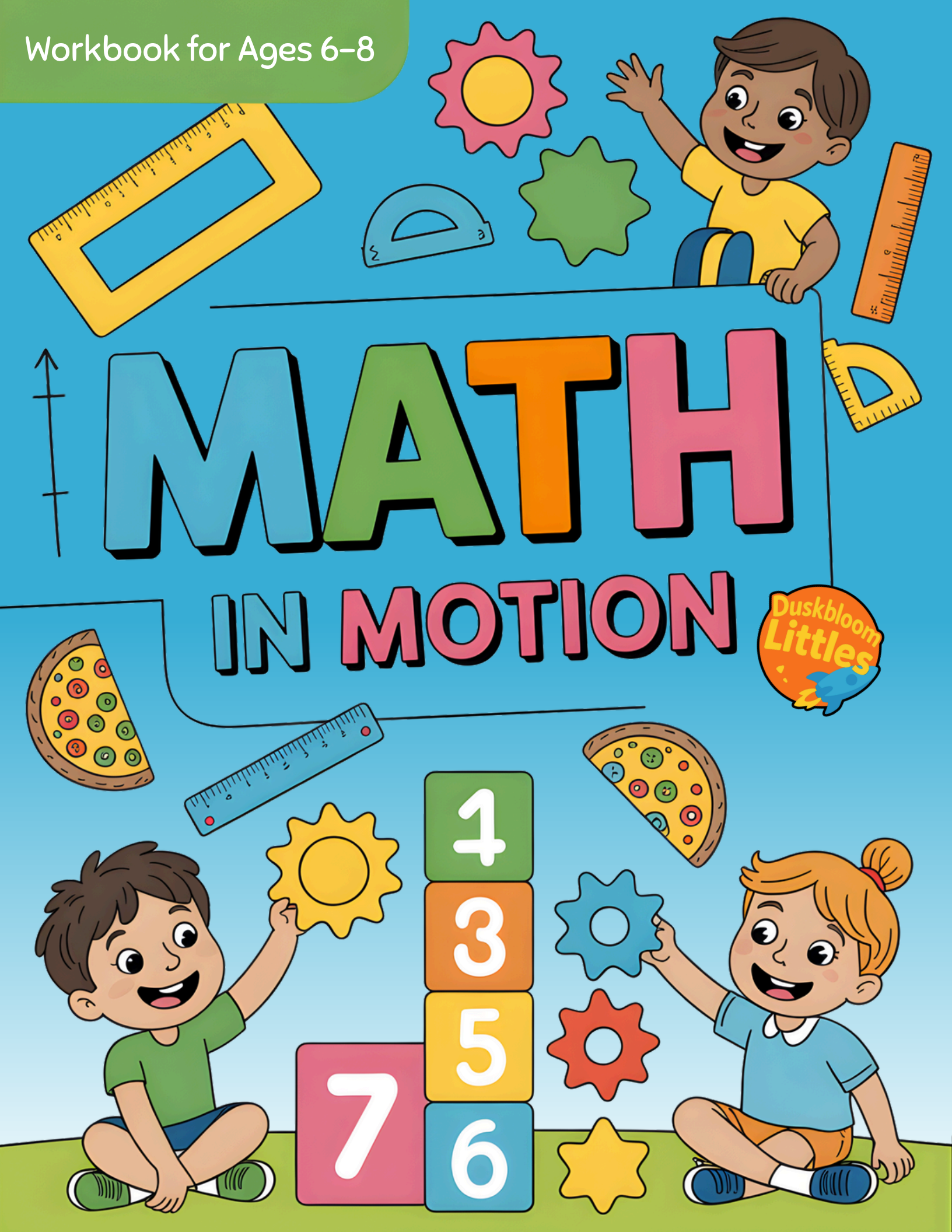
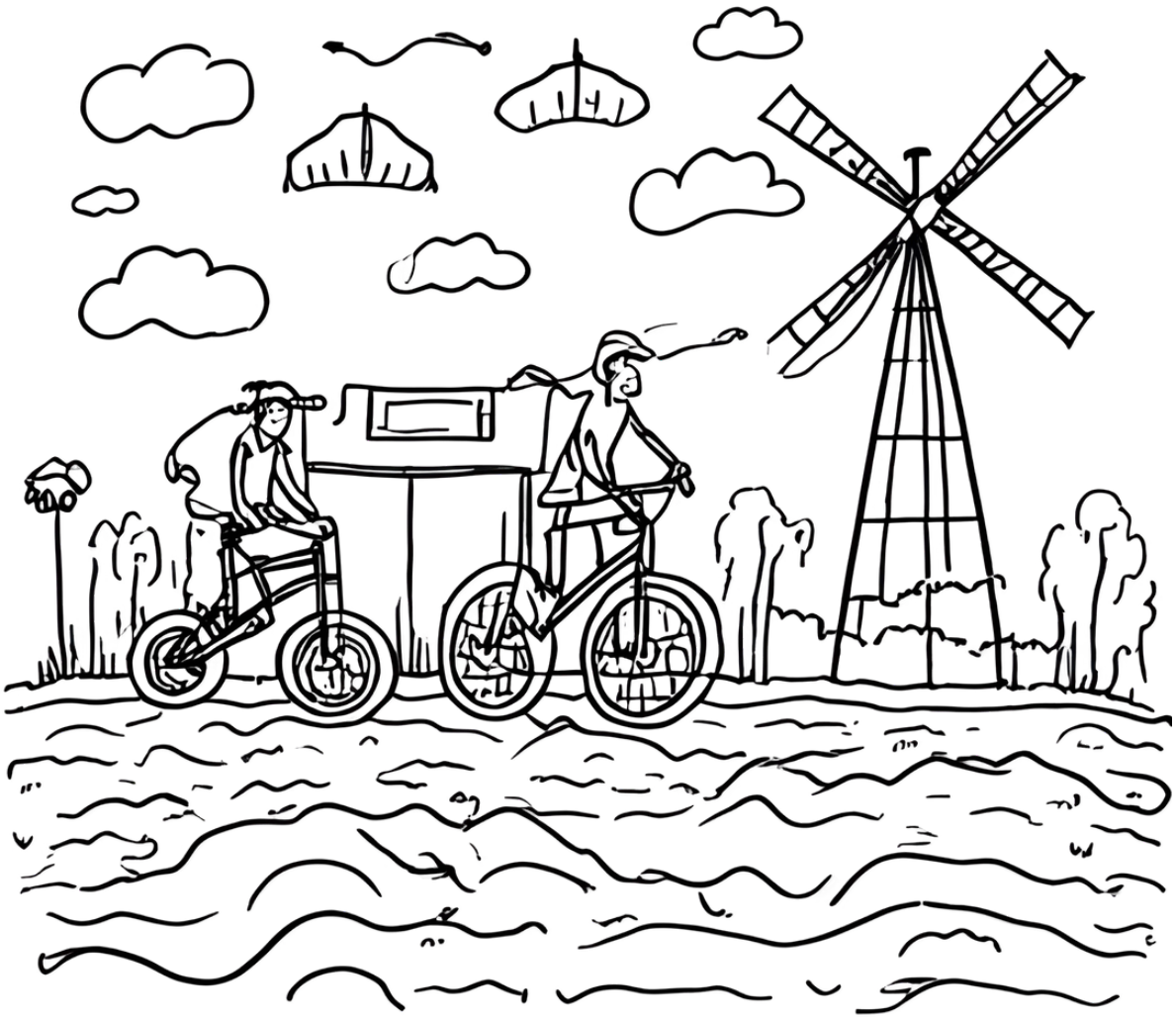
Workbook for Ages 6–8



Math in Motion
Workbook



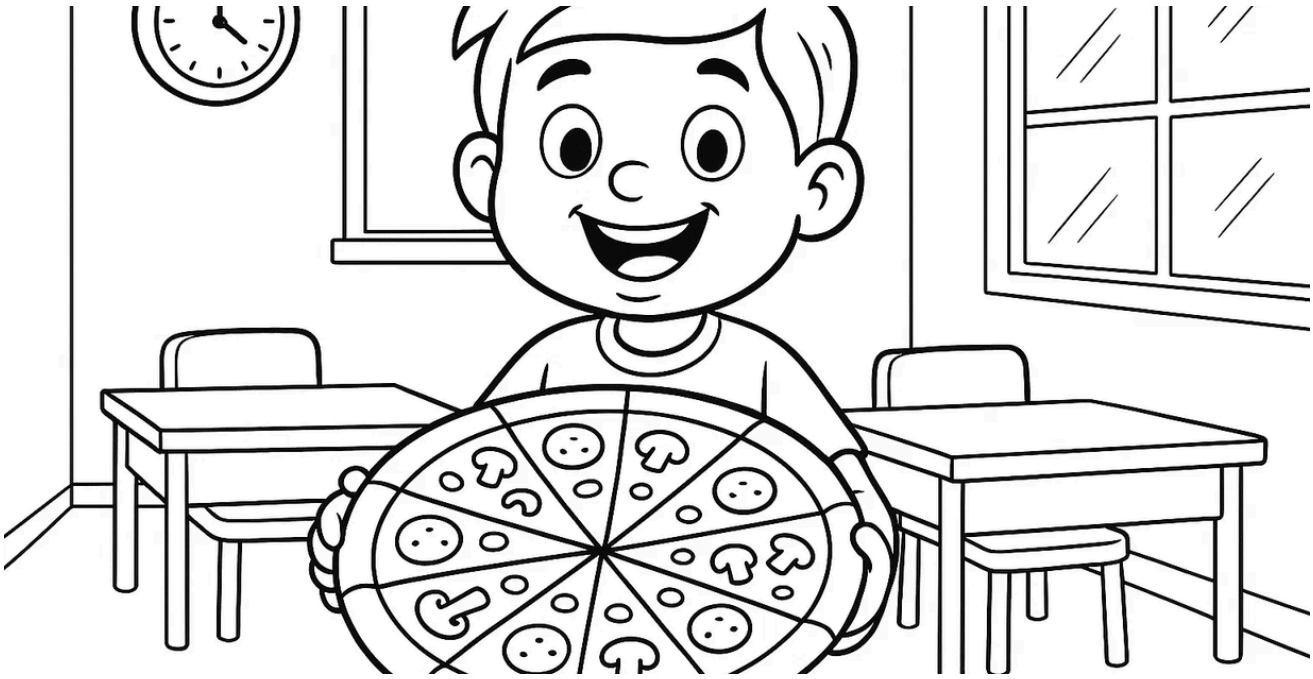
LET'S GET MOVING WITH MATH!

Math is all around us ... in the way things move, spin, and fit together!

Everywhere you look, math is in ***motion***!
When a wheel spins, when you slice a pizza, or fold a paper in half, that's math in action.
Let's explore how shapes and fractions help us understand our world.

ACTIVITY: CIRCLE HUNT!

Look at the image. How many circles can you find?



MINI CHALLENGE: Colour half of the pizza blue and one quarter green.

Draw three things in real life that are shaped like a circle.

FRACTION FUN!

Fractions show parts of a whole!

A fraction tells us how many parts we have and how many parts make the whole.

The top number (**numerator**) shows the parts you have.

The bottom number (**denominator**) shows how many equal parts make one whole.

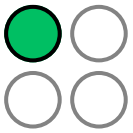
$$\frac{1}{2}$$

Examples:

$\frac{1}{2}$ = *one* out of **two** equal parts

$\frac{1}{2}$ = *one* out of **four** equal parts

 = *one* out of **two** equal parts

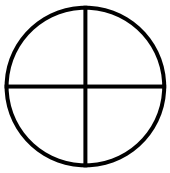
 = *one* out of **four** equal parts

ACTIVITY: COLOUR THESE SHAPES

Shade ½ of the rectangle



Shade ¼ of the circle



Shade ¾ of the pizza



Draw your own shape and divide it into equal parts!

SHAPE DETECTIVES

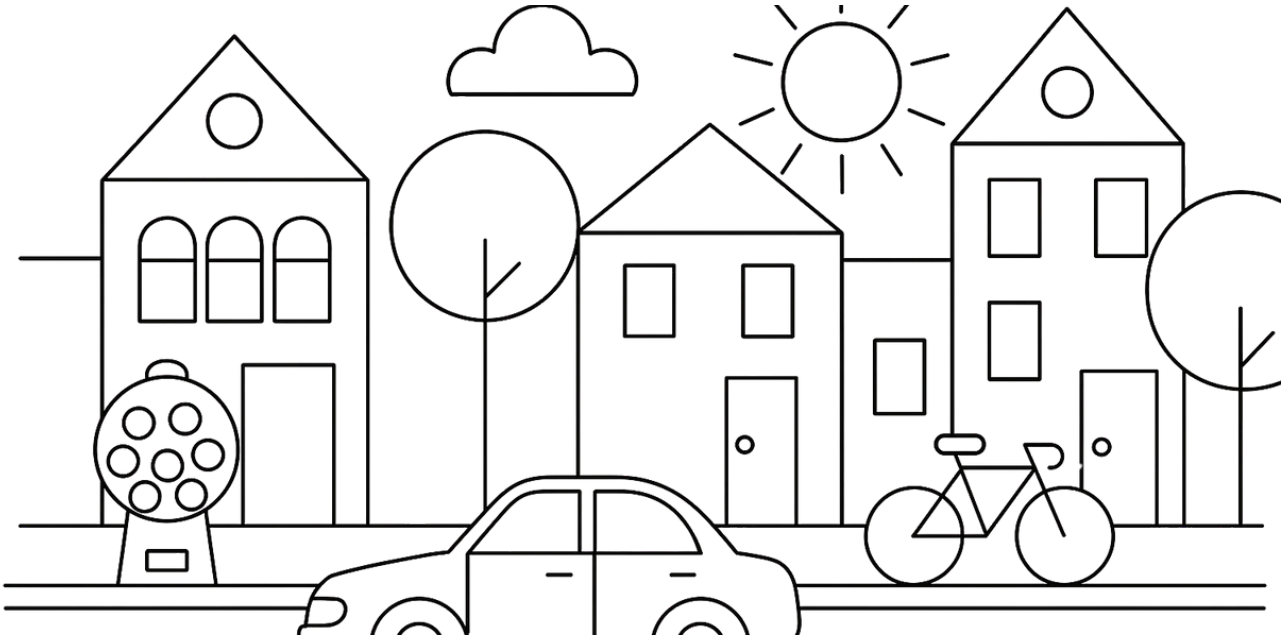
Find the shapes hiding in plain sight!

Shapes are **everywhere**! In buildings, toys, and even nature.

Let's be detectives and discover where we see them.

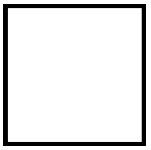
ACTIVITY

Circle all the triangles you can find.



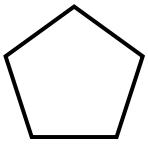
Draw one square object you can see in your home.

Count the corners and sides of each shape below. Write the number beside it.



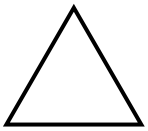
_____ corners

_____ sides



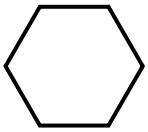
_____ corners

_____ sides



_____ corners

_____ sides



_____ corners

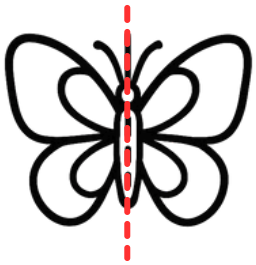
_____ sides

MOVING PARTS!

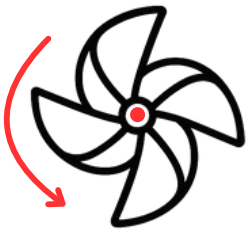
Symmetry and rotation in motion!

When something spins or turns, we can use math to describe it.

Symmetry means one side matches the other.

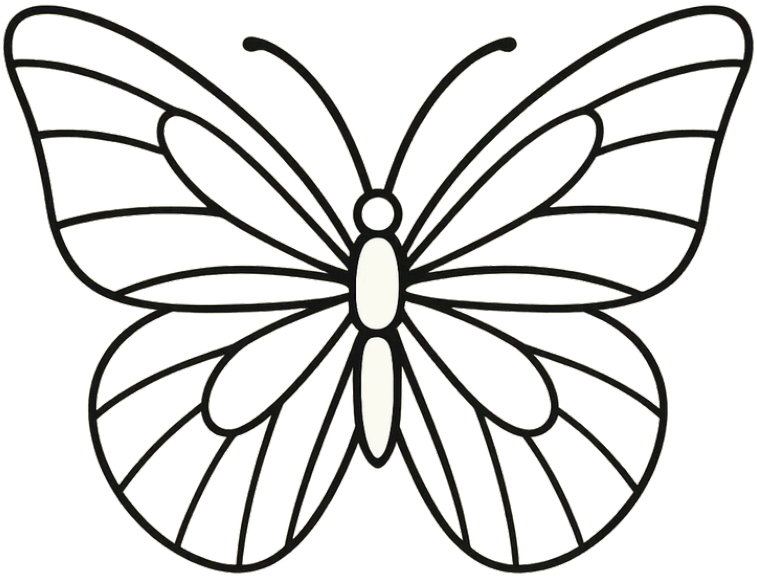


Rotation means turning around a center point.



ACTIVITY

Draw a line of symmetry down the middle of the butterfly.



Find three things in your home that have rotation (hint: fan, bike wheel, clock!).

1. _____

2. _____

3. _____

BUILD IT YOURSELF!

Create and explore with your hands!

Let's make our own math models.

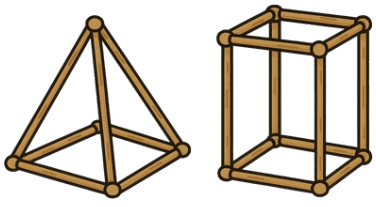
ACTIVITY 1: FRACTION WHEEL

1. Cut the circle from the next page and divide it into 8 equal parts.
2. Label the following sections: **⅛, ¼, ½**. Make sure all sections have a label.
3. Cut it out and colour: ⅛ green, ¼ purple, and ½ blue.
4. Paste all of your pieces in the box below.

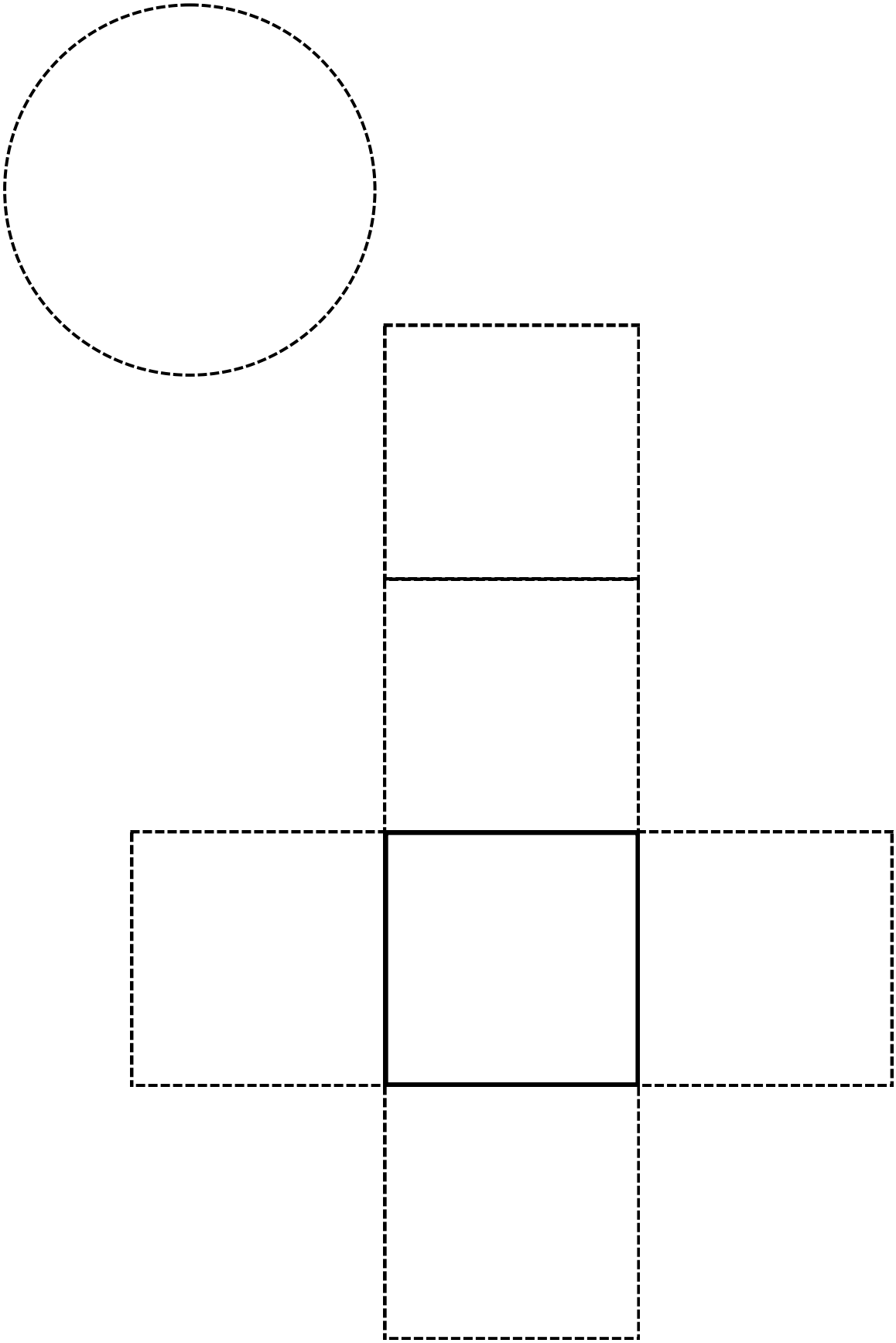
ACTIVITY 2: SHAPE NETS

1. Trace the cube on the next page (six connected squares).
2. Cut along the outside of the shape, fold, and tape the sides together to make your own 3D cube!

ACTIVITY 3: LEARNING IN ACTION ... BUILDING SHAPES



Try building a pyramid or rectangular prism out of sticks. How many *faces*, *edges*, and *corners* does it have?



MATH IN THE WORLD AROUND YOU

Math is everywhere you look!

Now that you've learned about fractions, shapes, and symmetry — can you spot them in your world?

ACTIVITY 1

Draw something at home that uses fractions (pizza, pie, or window panes).

ACTIVITY 2

Draw something that shows symmetry (butterfly, heart, leaf).

ACTIVITY 3

Draw a shape you see outside (triangle roof, circle sun).

MINI QUIZ!

1. What is ½ of a circle?

_____

2. Name a shape with 4 sides.

_____

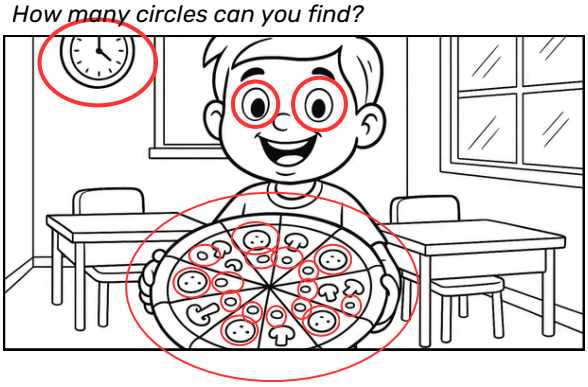
3. How many equal parts are in ¼?

_____

ANSWER KEY

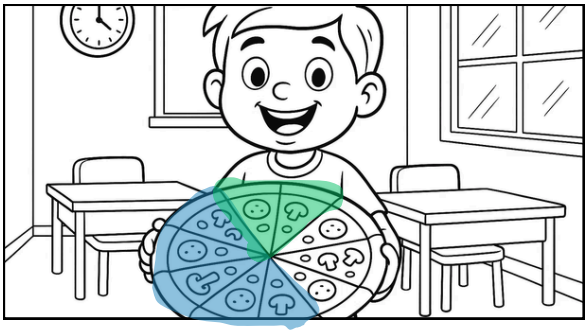
Page 5

How many circles can you find?

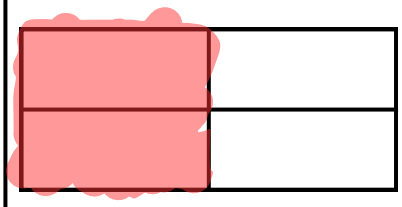


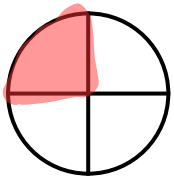
20 circles

Colour half of the pizza blue and one quarter green.



Page 6







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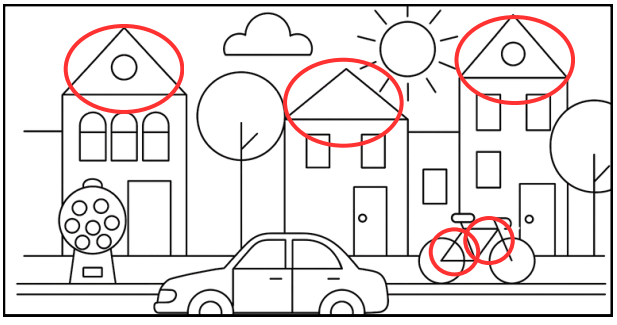
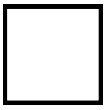
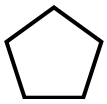
Circle all the triangles you can find.



Count the corners and sides of each shape below. Write the number beside it.



4 corners
4 sides



5 corners
5 sides



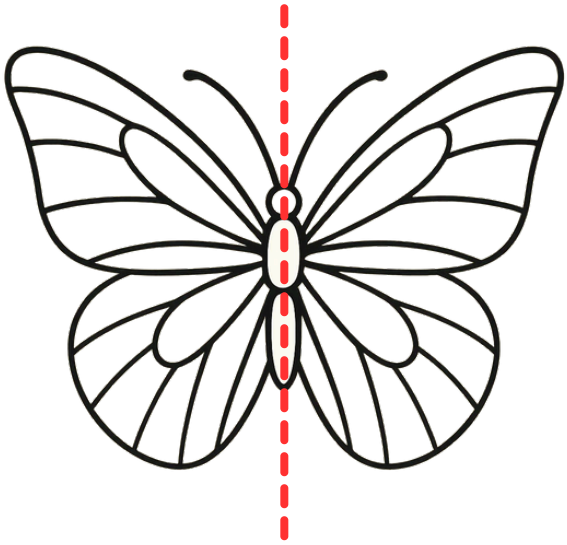
3 corners
3 sides



6 corners
6 sides

ANSWER KEY

Page 8



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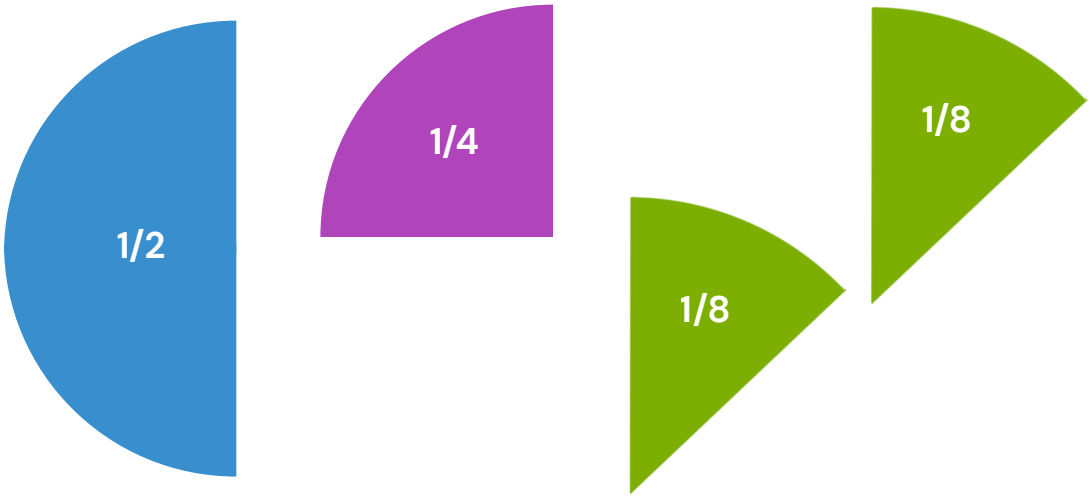

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1. 1/2
2. Square
3. Four (4)