



Helping With Math

Recognizing Symmetrical Figures

GRADE 4



In geometry, symmetry happens when two or more parts are identical after a flip, slide or turn

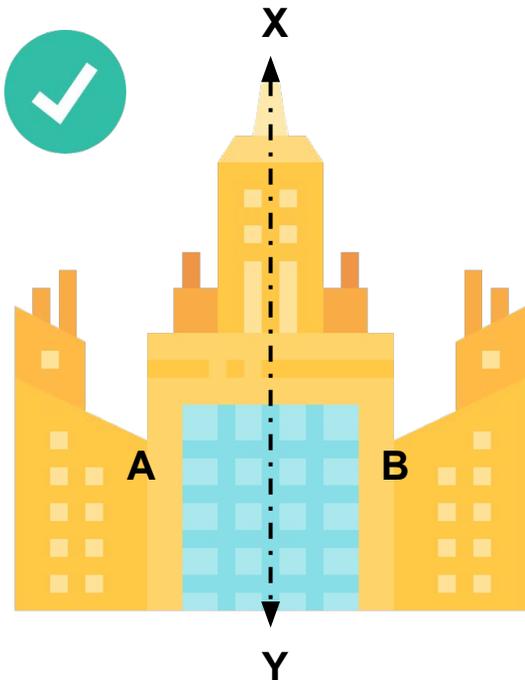


Figure A is symmetrical with figure B because the two figures are identical.

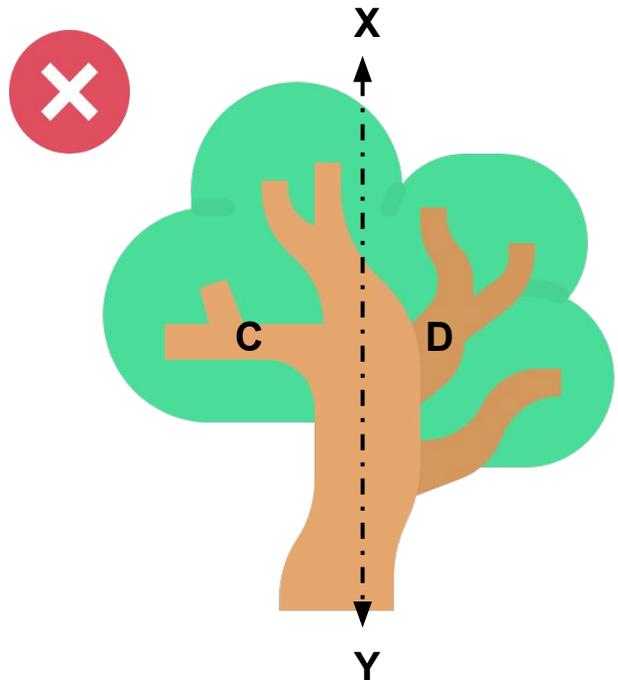


Figure C is not symmetrical with figure D because the two figures are not identical.



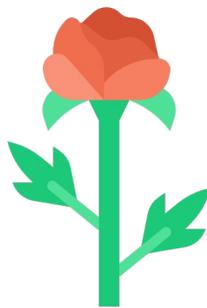
ORIGIN OF SYMMETRY

SYMMETRY

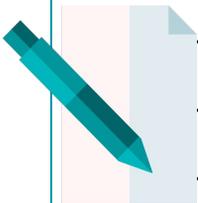
- This comes from words “*syn*” which means “together” and “*metros*” which means “to measure”.
- This means agreement in dimensions, due proportion, arrangement, having a common measure, even, proportionate.



Which among the following has symmetry? Put a check on your choice.



What makes you decide to check those boxes? Share your thoughts.

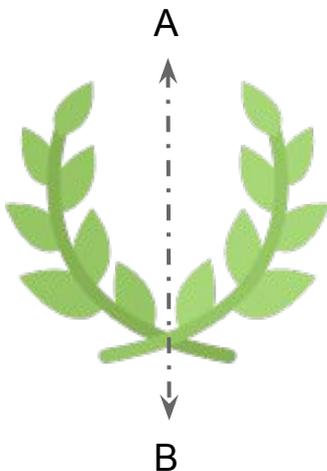




LINE OF SYMMETRY

LINE OF SYMMETRY

- The "Line of Symmetry" is the imaginary line where you could fold the image and have both halves match exactly.
- It is also known as reflection symmetry where one half of the picture reflects the other side, in half, of the figure.
 - Vertical Line of Symmetry- A line which runs down an image. Thus, dividing it into two identical halves.
 - Horizontal Line of Symmetry. A line that runs across the image thus dividing into two identical halves.

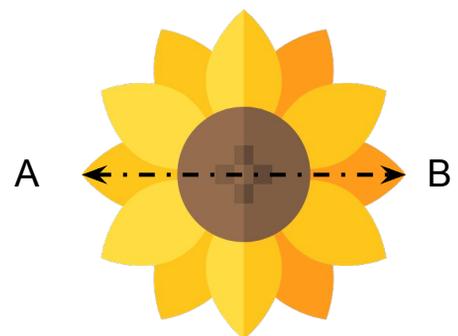


Let's draw a vertical line of symmetry on the image on the left. Draw line AB.

Do both sides became the "mirror" or reflection of one another? Yes! Thus, the images produced are identical or symmetrical!

This time, trace a horizontal line of symmetry on the sunflower. Draw line AB.

Do both portions became the "mirror" or reflection of one another? Yes! Thus, the images produced are identical or symmetrical!



ASYMMETRICAL FIGURES

Images below are examples of asymmetrical figures. Draw lines of symmetry. What do you notice? What made these figures asymmetrical?



PRACTICE EXERCISES

Encircle the symmetrical figures. Otherwise, enclosed them in a box.

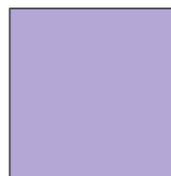
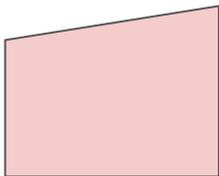
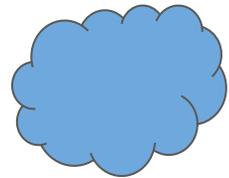


TABLE OF ACTIVITIES

1. Bug or Butterfly
2. Nature Shapes
3. Green Runs or Across?
4. Garden of Geometry
5. Symmetrical Plants
6. Flowers and Shapes
7. Beautiful Blooms
8. Identical Garden Stuff
9. Our Garden
10. Garden Journal



BUG OR BUTTERFLY?

Who owns these beautiful flowers? Will it be the bug or the butterfly? Draw a butterfly if the statement is TRUE otherwise, draw a bug.

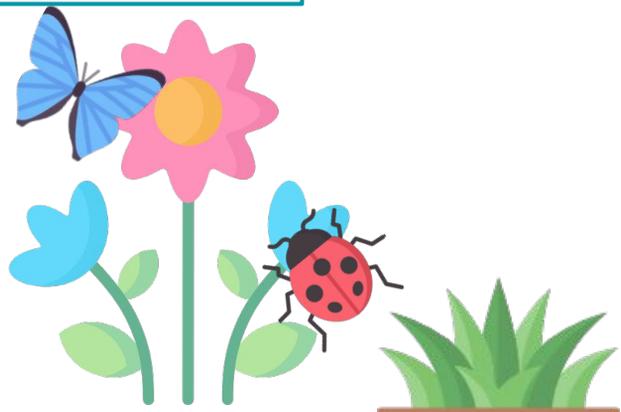
1. Symmetrical comes from words “syn” which means together and “metros” which means to measure.

2. Asymmetrical figures are proportional and equal in measure.

3. Line of symmetry is also known as rotational symmetry.

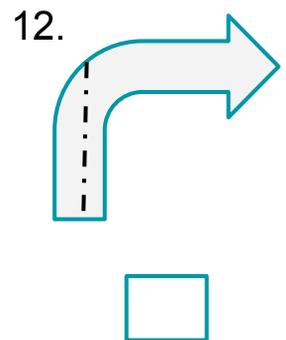
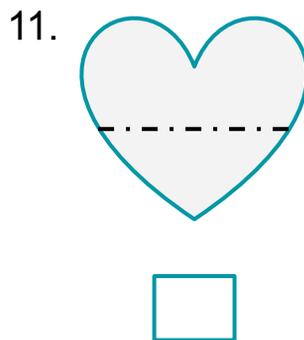
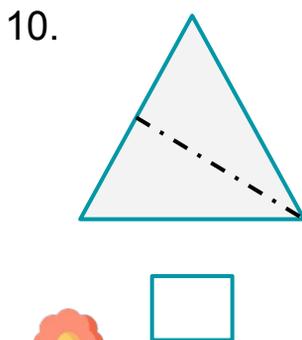
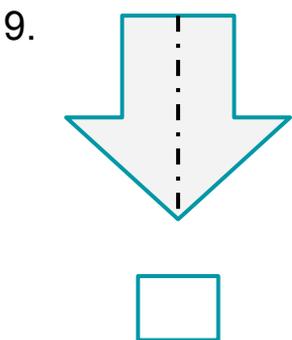
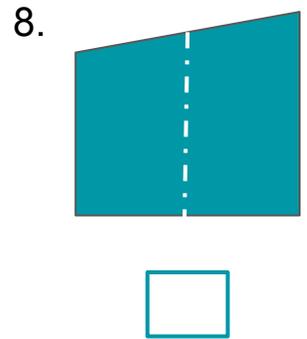
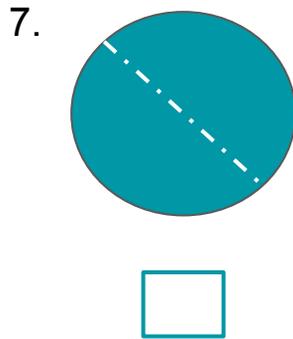
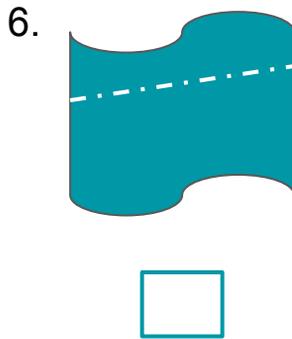
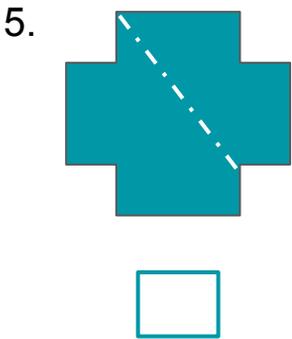
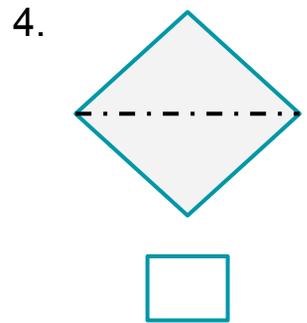
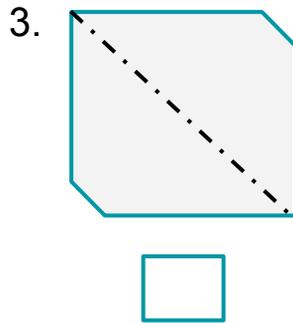
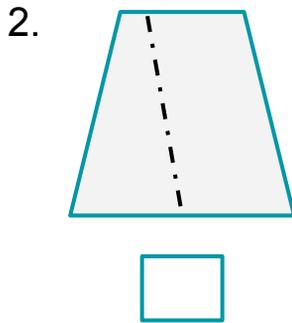
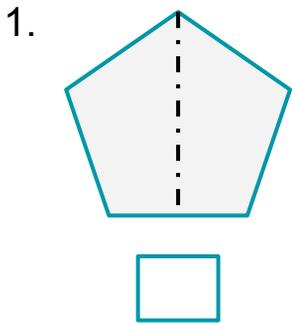
4. A line that runs across the image thus dividing into two identical halves is called horizontal line of symmetry.

Who wins? Is it he bug or the butterfly?



NATURE SHAPES

These are common shapes of the things we see in nature. Identify whether the drawn imaginary lines are line of symmetry. Put a check if it is, otherwise mark x.



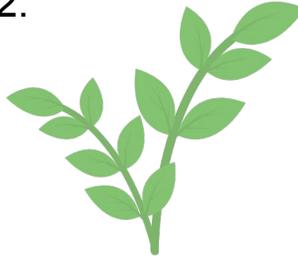
GREEN RUNS OR ACROSS?

Look at these lovely plants and flowers! Determine the type/s of line of symmetry present in each figure. Encircle it if there's none.

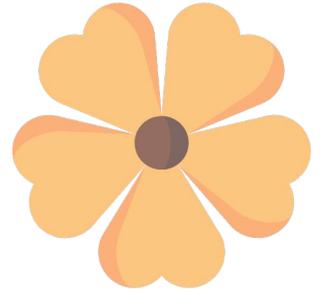
1.



2.



3.



4.



5.



6.



7.



8.



9.



GARDEN OF GEOMETRY

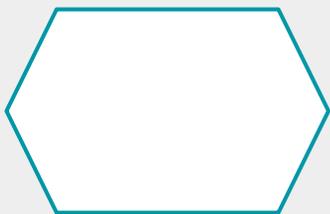
Welcome to the Garden of Geometry! These images are common in this garden. Find and draw all lines of symmetry for the following figures then indicate the maximum number of lines possible.



1. _____



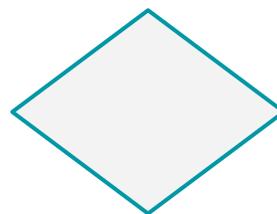
2. _____



3. _____



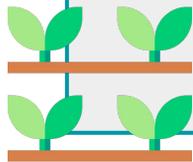
4. _____



5. _____



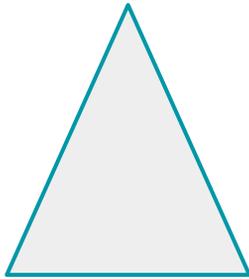
6. _____



SYMMETRICAL PLANTS

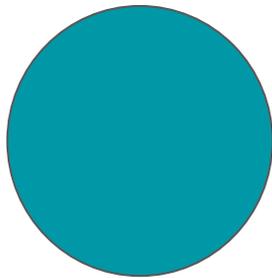
Appreciate these special plants! Do you know what makes them so special? They are symmetrical plants! Match the number of line/s of symmetry that can be drawn on these figures. Write your answer on the space provided.

1.



A. One line 

2.



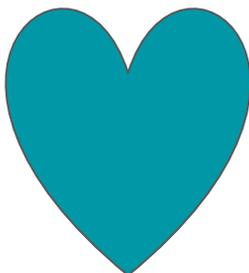
B. Three lines

3.



D. Four lines 

4.



E. Infinite 

F. Five lines 



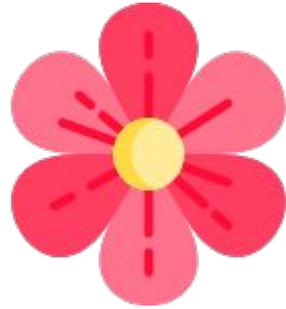
FLOWERS AND SHAPES

Meet the flowers and their lovely friends - shapes! Draw a line/s of symmetry to each figure.

1.



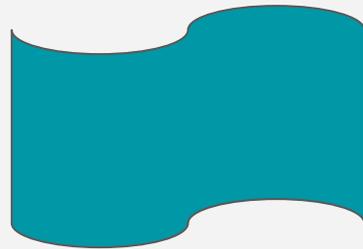
2.



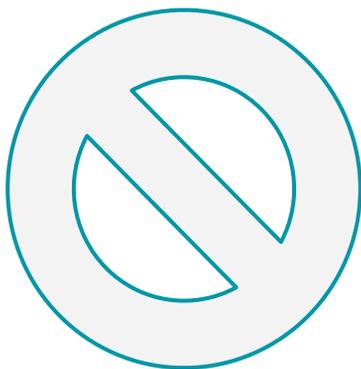
3.



4.



5.

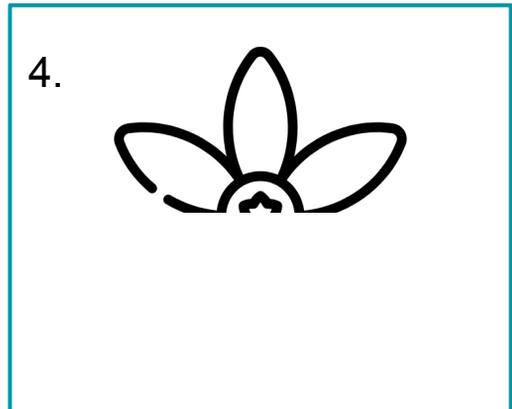
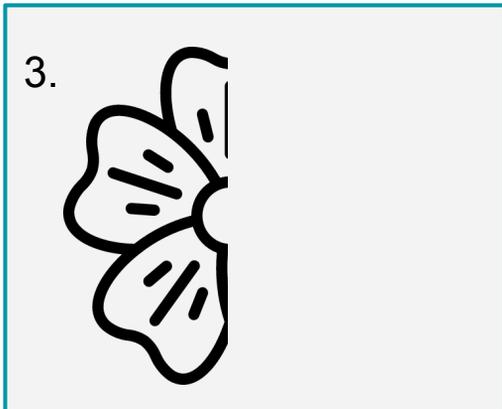
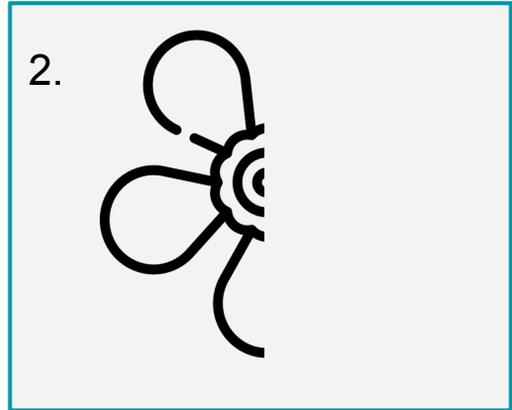
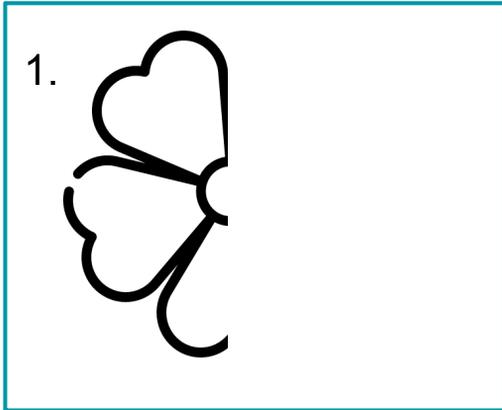


6.

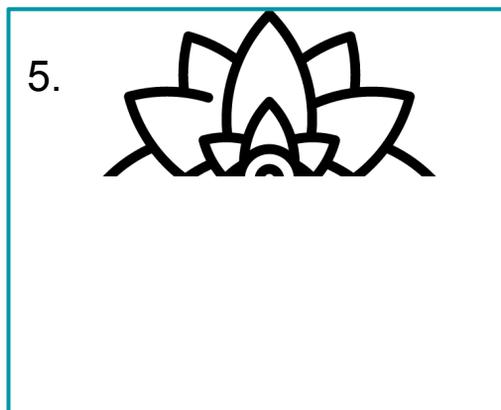


BEAUTIFUL BLOOMS

Complete the half of each flower to unleash its beauty! Draw its identical half.



Challenge:



IDENTICAL GARDEN STUFF

Which among these figures have at least one line of symmetry?
Encircle your answer.

1.



2.



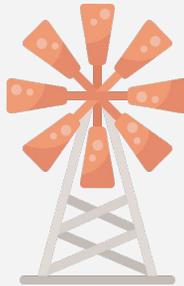
3.



4.



5.



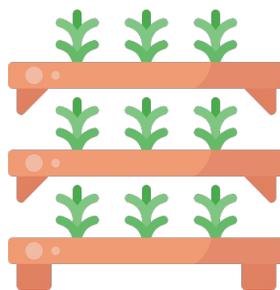
6.



7.



8.



9.



OUR GARDEN

Now it's time to visit your garden and look for symmetrical figures. Fill in the details of the table below.

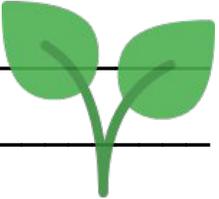
Name of the object	Illustration	Number of line of symmetry



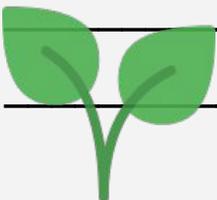
GARDEN JOURNAL

Like beautiful plants and flowers in the garden, writing your reflection about this lesson is important too! Answer the following questions.

1. Are all things symmetrical? If not, cite five things that are considered asymmetrical figures.

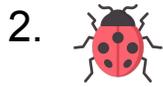


2. When do we say that a figure is symmetrical or not? Explain the concepts of symmetrical and asymmetrical in your own words.



ANSWER GUIDE

Activity 1



Activity 2

1. ✓

2. X

3. ✓

4. ✓

5. X

6. X

7. ✓

8. X

9. ✓

10. ✓

11. X

12. X

Activity 3

1. Vertical

2. None

3. Vertical

4. Vertical

5. Vertical

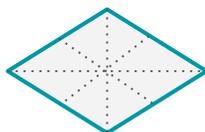
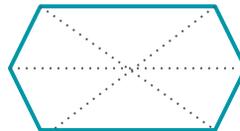
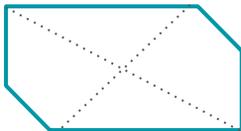
6. None

7. None

8. None

9. Vertical

Activity 4



ANSWER GUIDE

Activity 5

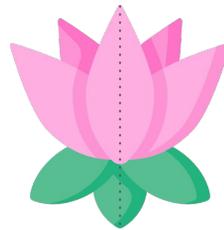
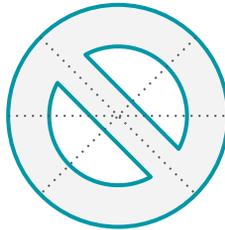
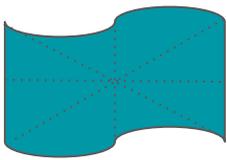
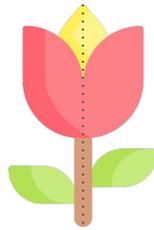
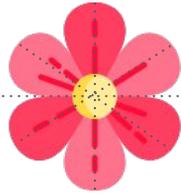
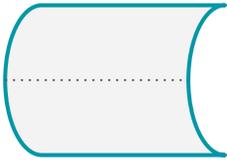
1. B

2. E

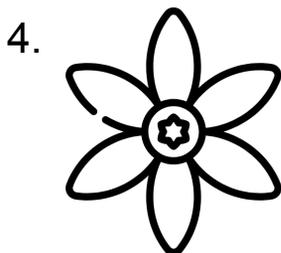
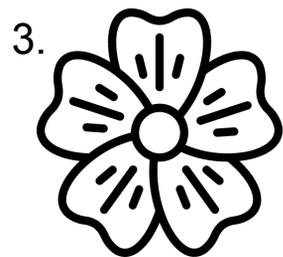
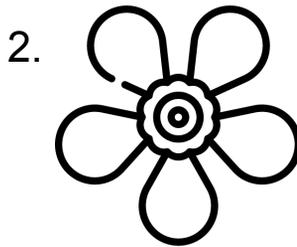
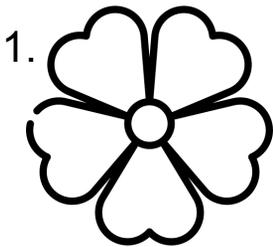
3. D

4. A

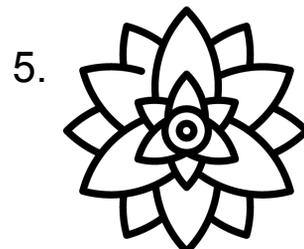
Activity 6



Activity 7

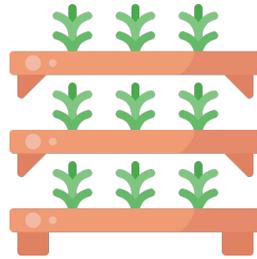
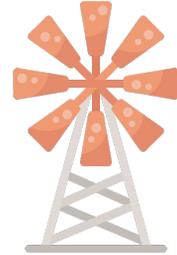


Challenge:



ANSWER GUIDE

Activity 8



Activity 9

Answers may vary.

Activity 10

Answers may vary.



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