



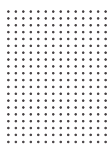
Students will be able to build on a symmetrical geometric patterns using a dot grid

40- 50 min

PRE REQUISITES:

G3.57 Know how to identify symmetrical halves

TLM



1 dot grid sheet: 1 student

MISCONCEPTIONS

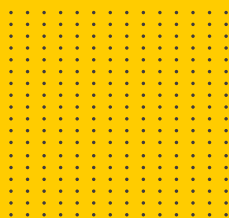
None

KEY VOCABULARY

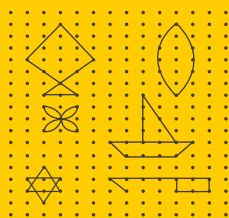
None



PLAY



Blank dot grid



Draw shapes

Identifying symmetrical shapes using a dot grid

Distribute dot grid sheets to all the students

Ask the students to draw a kite, a star, a flower with 4 petals, & a boat by joining the dots on the grid

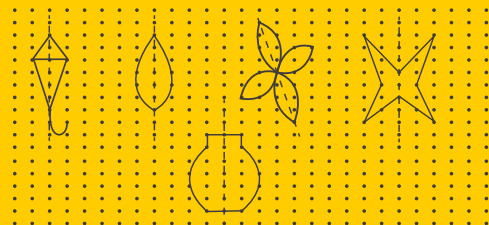
Ask the students to try folding the paper along any one line of dots

Check if the left side of their drawing is similar to the right-hand side

Ask the students to draw other designs of their choice & check if they have similar left & right hand sides



PROCESS



Drawing symmetrical shapes on a dot grid

On a dot grid draw some shapes as shown

Explain that different kinds of patterns can easily be drawn using the dots of a grid

Tell the students that they can make straight lines as well as curved lines using the dot grid

On the blackboard draw a dot grid & some draw straight lines on it

Draw some shapes which are symmetric around the line (Eg, a leaf, a flower, a pitcher)

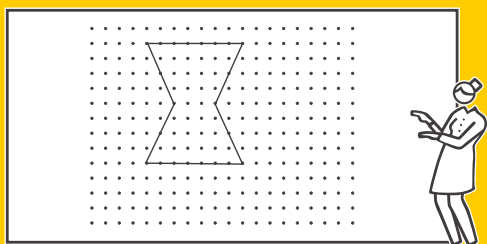
Draw some shapes that are not symmetric around the lines

Explain that the dot grids can be useful in making shapes that have similar halves

TEACHER'S NOTE: Rangoli patterns can also be used to demonstrate symmetric halves of a design

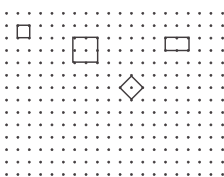


PRACTICE



Draw a pattern on the blackboard & ask the student to identify if can be divided into 2 similar

Help the students solve question 2 from the worksheet. Ask the students to use these shapes to draw patterns on a dot grid paper



QUESTION

What is the difference between the first two squares?

Help the students solve question 4 from the worksheet. Draw shapes on the blackboard & ask the students to identify if they can be divided into similar halves

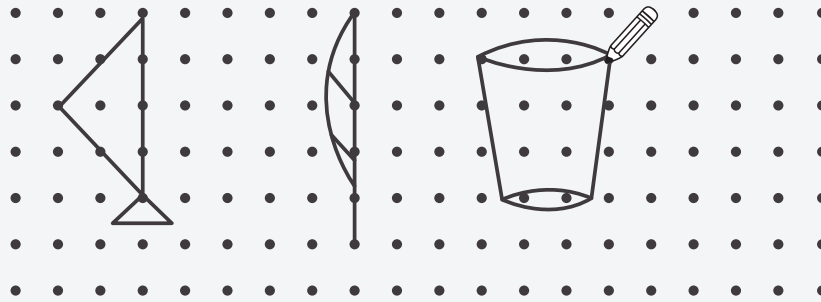


QUESTION

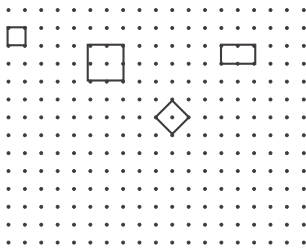
Draw another shape by connecting the same dots that are connected in this picture. Can that shape be divided into 2 similar parts?



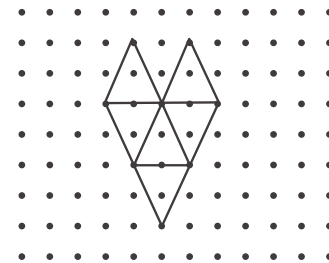
① SOLVED EXAMPLE : Complete the shapes



② Use the given shapes draw patterns of your choice on a dot grid paper



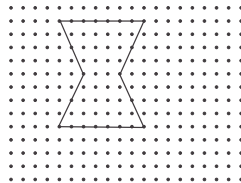
③ Draw a line through this picture to check it can be divided into 2 similar halves



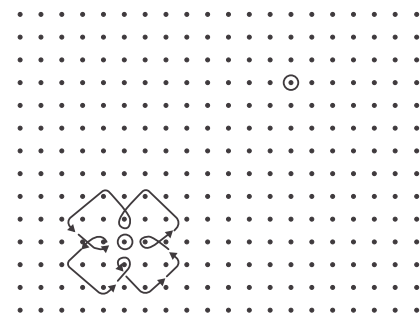
④ Draw following

4a. Draw a line through this picture to check it can be divided into 2 similar halves.

4b. Draw another shape using the same 8 dots used to make this shape



⑤ Make only left half on the given shape



Dot grid can also be used to represent 3-D objects. A box shape is shown below. Copy the shape in the blank grid.

