# NETS OF CUBES

## COURSE/LEVEL
NSW Secondary High School Year 7 Mathematics.

## TOPIC
- Solids

**SUMMARY** Students work in small groups to investigate the nets of cubes.

**EQUIPMENT**
6 square shapes
This worksheet (2 pages)
Grid Paper

## INSTRUCTIONS

1 As a group decide how would describe a cube to someone who doesn't know what one looks like. Discuss this briefly and write what you would say below.

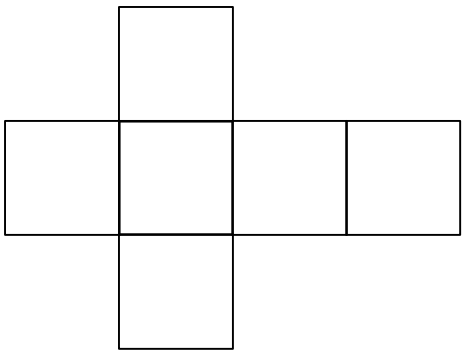
_____

_____

_____

2 Take 6 squares and place them together flat on the desk to make the shape below:

*A*



Does this shape fold up to make a cube with no holes or bits left over?

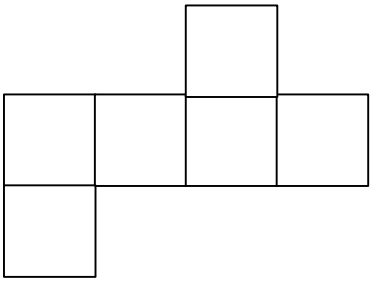
_____

3 Look at the nets on the next page. Check each one carefully and decide whether it would make a cube. If you are not sure, you can make it with your squares.

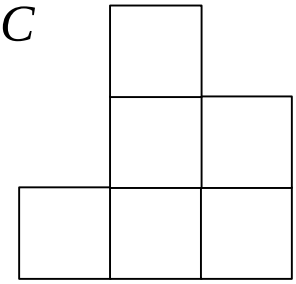
Complete the table below answering *Yes / No* for each one. ***A*** has been done as an example.

| Flat shape (net) | ***A*** | ***B*** | ***C*** | ***D*** | ***E*** | ***F*** | ***G*** | ***H*** | ***I*** |
|---|---|---|---|---|---|---|---|---|---|
| Does it make a cube? | *Yes* | | | | | | | | |

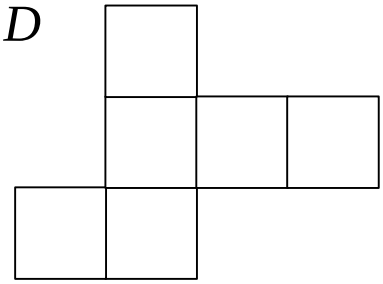
*B*



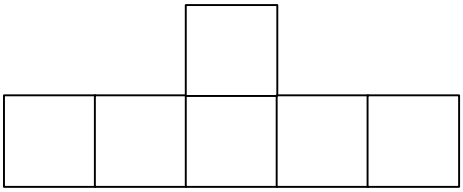
*C*



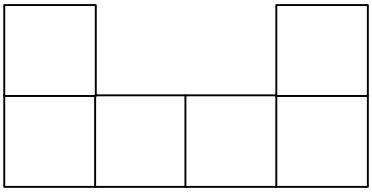
*D*



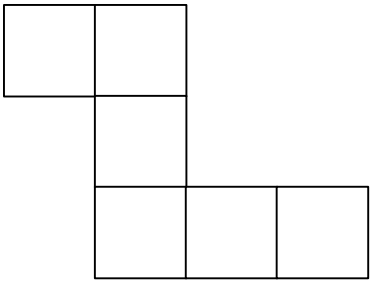
*E*



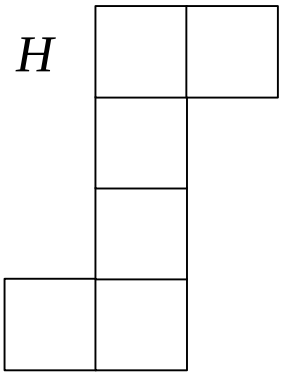
*F*



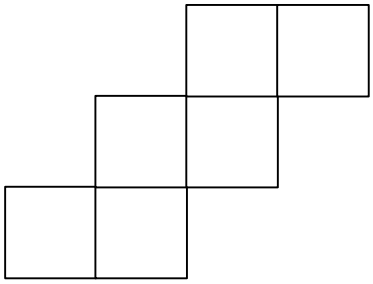
*G*



*H*



*I*



4 Use your piece of grid paper to make up as many other nets of cubes as you can. Remember to count only **different** nets.

5 When you think you have finished, use the answer sheet to mark your work for Questions 3 and 4.

# NETS OF CUBES

## Answers

| Flat shape (net) | ***A*** | ***B*** | ***C*** | ***D*** | ***E*** | ***F*** | ***G*** | ***H*** | ***I*** |
|---|---|---|---|---|---|---|---|---|---|
| Does it make a cube? | *Yes* | *Yes* | *No* | *Yes* | *No* | *No* | *No* | *Yes* | *Yes* |

*The following nets may be folded to form a cube.*