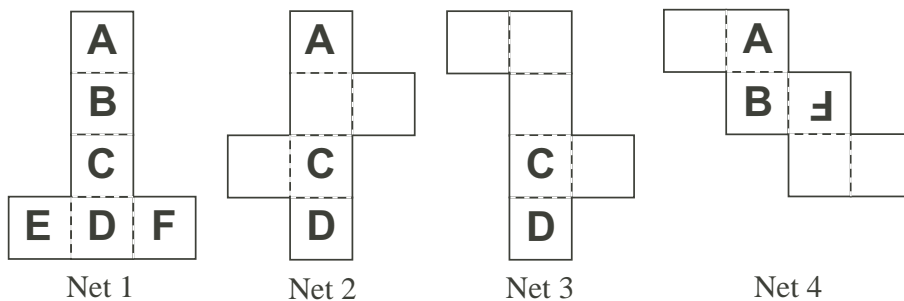
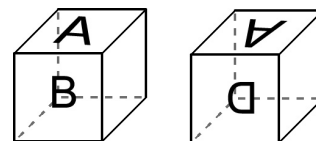


**Problem**

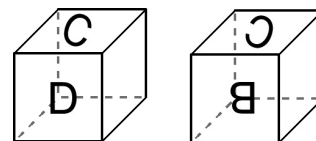
Below is a set of four nets, all for the same die.



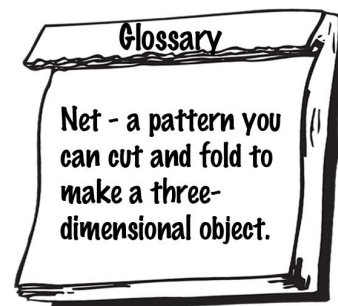
a) Both cubes at the right were formed using Net 1. Fill in the appropriate letter as it would appear on the blank (right) face of each cube.



b) Repeat part a) for the cubes shown at the right, which were also formed from Net 1.

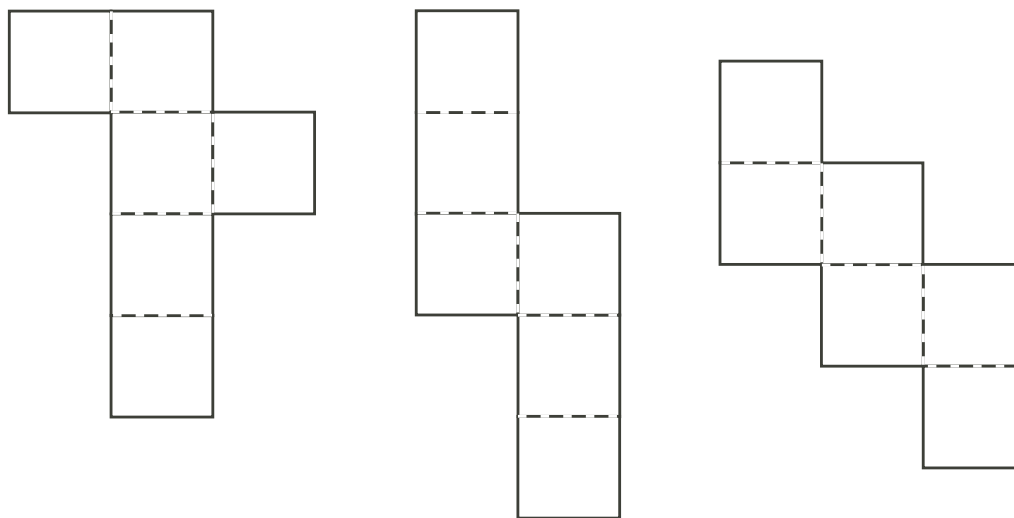


c) Complete Nets 2, 3, and 4 so that the letters are oriented the correct way to make exactly the same die as Net 1 would make.



**Extensions :**

1. Use each of the blank nets below to design a net for a die so that, from one point of view, the four vertical sides of the resulting cube form the word **MATH**.



## Hints

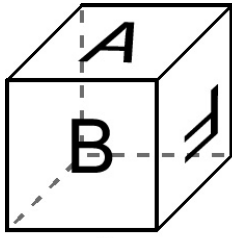
*Suggestions:* Discuss part a) with the class as a whole, and then let them try part b). If students have difficulty with part c) (or the Extension), have them cut out the three nets and try various possibilities with pencils (and erasers). Alternatively, blank dice and erasable markers could be used.

**Extension :** Emphasize that students should try to place the letters **M**, **A**, **T**, **H** appropriately without cutting out the net. Then have them do so to verify that the letters of the word **MATH** do appear, in the correct order, on the vertical sides of the resulting cube.

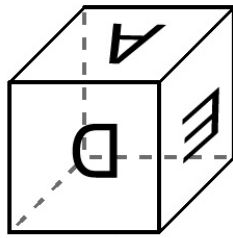
**Solution**

a) Views with the letter A at the top:

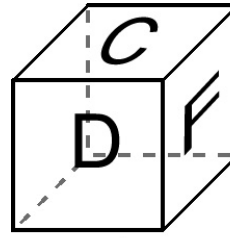
b) Views with the letter B at the top:



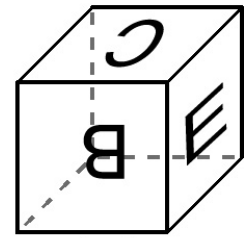
'Front view'



'Back' view

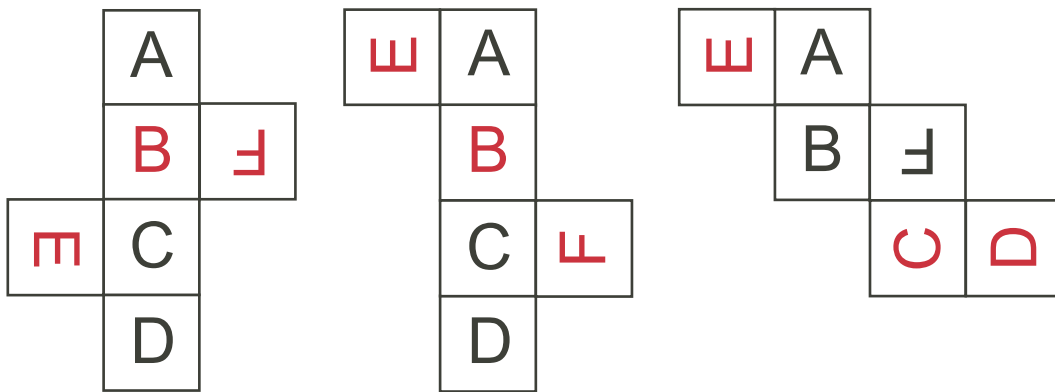


'Front' view



'Back' view

c) The completed nets are:



**Extension :**

Solutions will vary. Three possible solutions are shown below. Students can check their answers by constructing the cubes.

