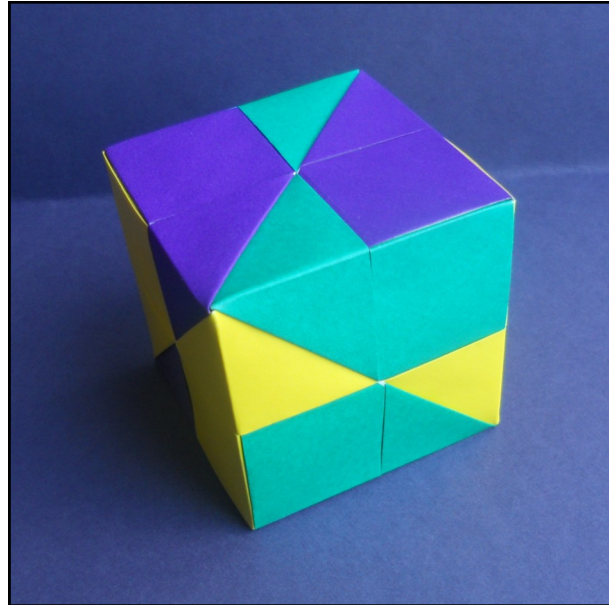


## 6-Part Letterbox Cubes

These diagrams show you how to make 6-part Cubes from parallelogram and triangle Letterbox modules. Diagrams for the basic forms of the parallelogram and triangle Letterbox module can be found elsewhere on this site.

I discovered parallelogram Letterbox modules in 1987, before I knew of the existence of the Sonobe module, and the triangle version in 1989.



I believe, but have not proved, that for each colouring of a 6-part cube made using parallelogram modules there are three possible colourings if triangle modules are used instead.

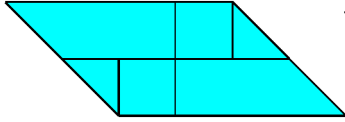
Parallelogram modules come in left-handed and right-handed mirror-image versions. Sets of mirror-image parallelogram modules and triangle modules can be combined to create Mongrel cubes.

When folded from the same size squares, Letterbox parallelogram modules are the same size and shape as Sonobe and Corner-pocket Sonobe modules, which means that they can also be used interchangeably to create Motley cubes.

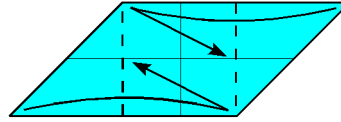
All the 6-part Cubes explained in these diagrams are made from plain modules. However it is, of course, possible to fold them from contrast modules instead. If you combine contrast modules of different designs and colours you can easily create a multiplicity of irregularly patterned cubes.

## 6-part Cubes from Letterbox parallelogram modules

1



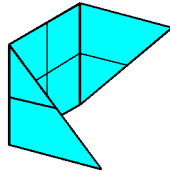
2



1. This is a basic parallelogram Letterbox module. Turn it over sideways.

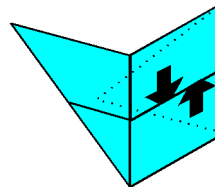
2. Fold the right and left points inwards as shown, then unfold at right angles.

3



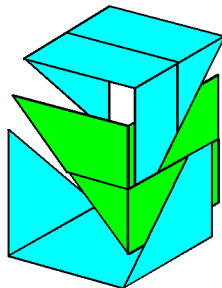
3. The finished module should look like this. You will need six to make a cube.

4



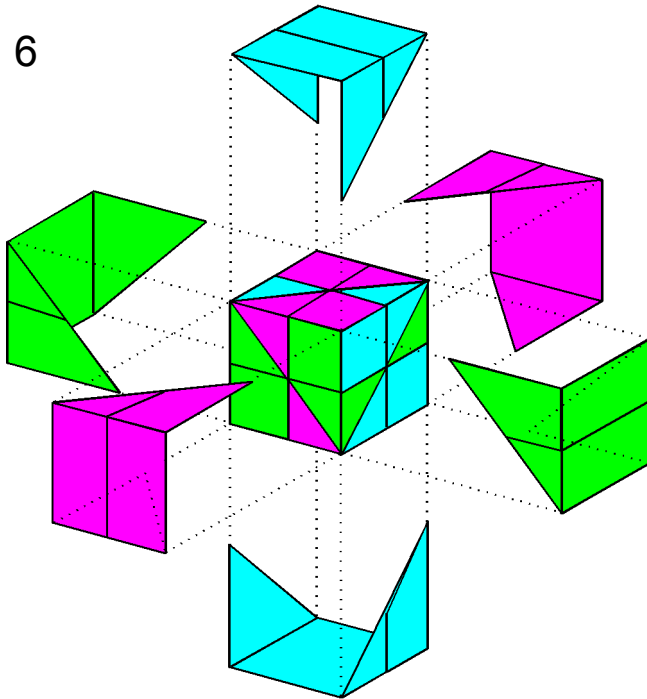
4. The arrows indicate the location of the pockets.

5

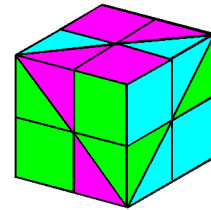


5. Three modules go together like this to form one face of the cube.

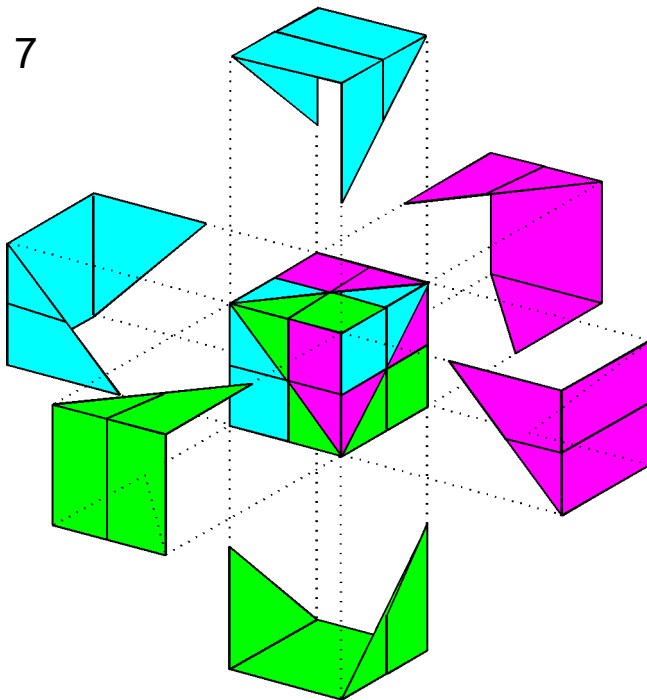
6



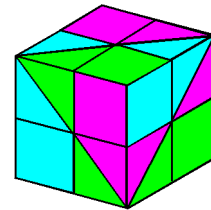
6. The other four modules are added in a similar way until all the arms are tucked fully into the pockets.



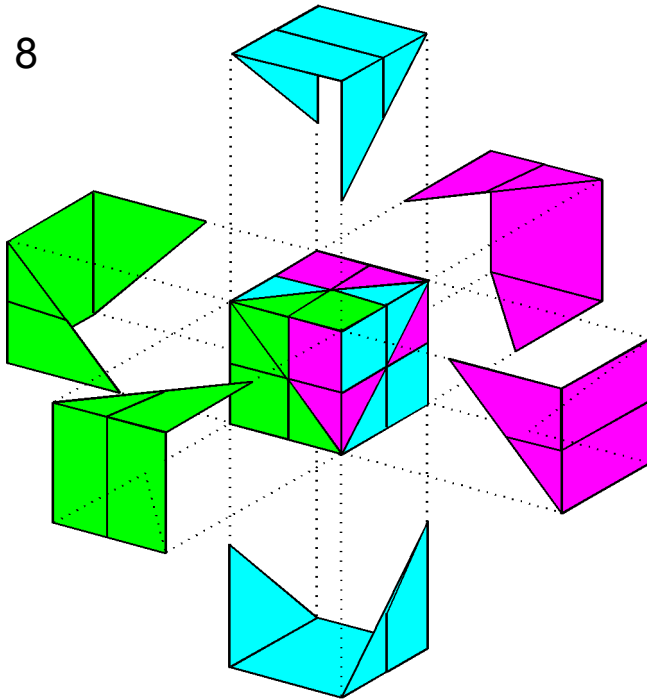
7



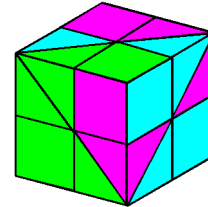
7. Alternatively, you can arrange the modules so that modules of the same colour are adjacent to, rather than opposite, each other like this.



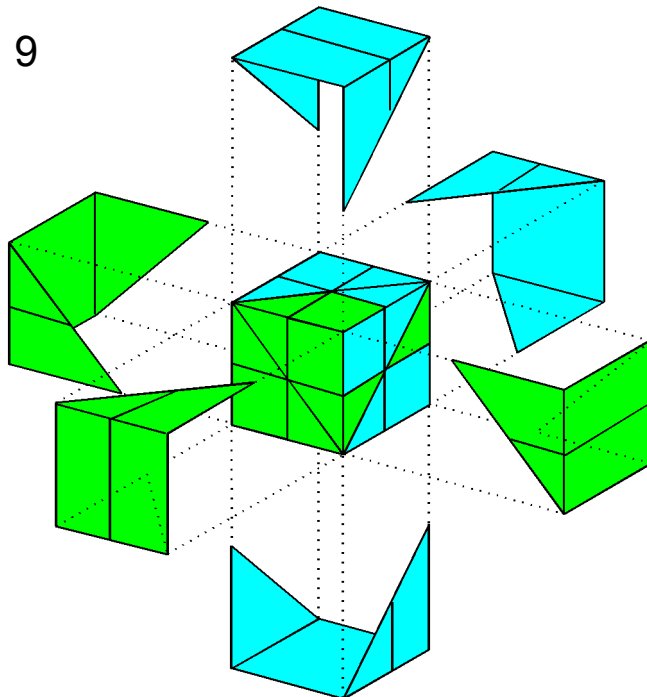
8



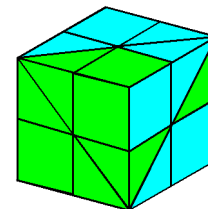
8. Or you can arrange the modules so that the modules of one colour are opposite each other while the modules of the other two colours are adjacent to each other, like this.



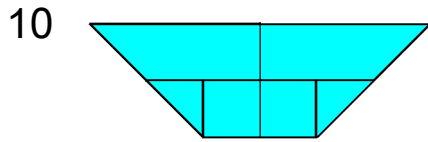
9



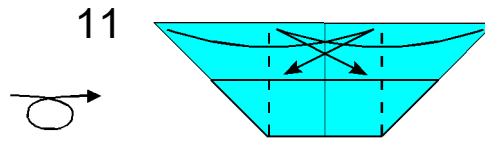
9. You could also create a 6-part cube using three modules in each of two colours like this.



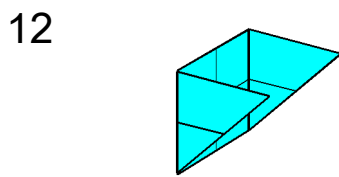
## 6-part Cubes from Letterbox triangle modules



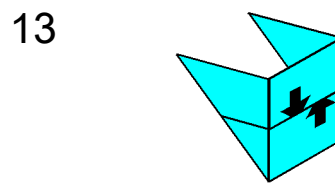
10. This is a basic triangle Letterbox module. Turn it over sideways.



11. Fold the right and left points inwards as shown, then unfold at right angles.

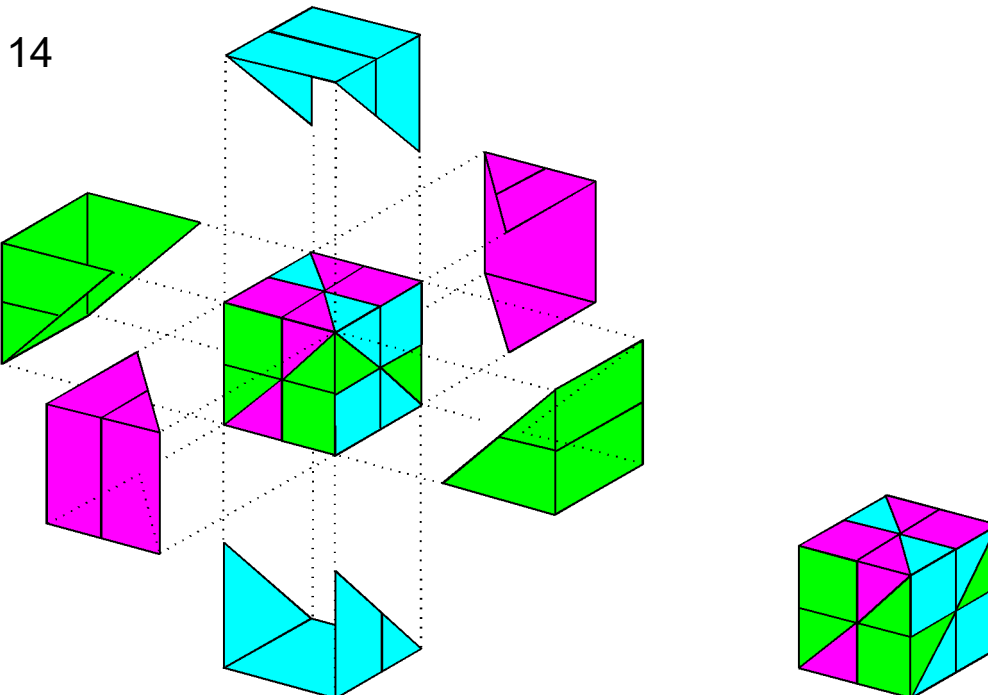


12. The finished module should look like this. You will need six to make a cube.

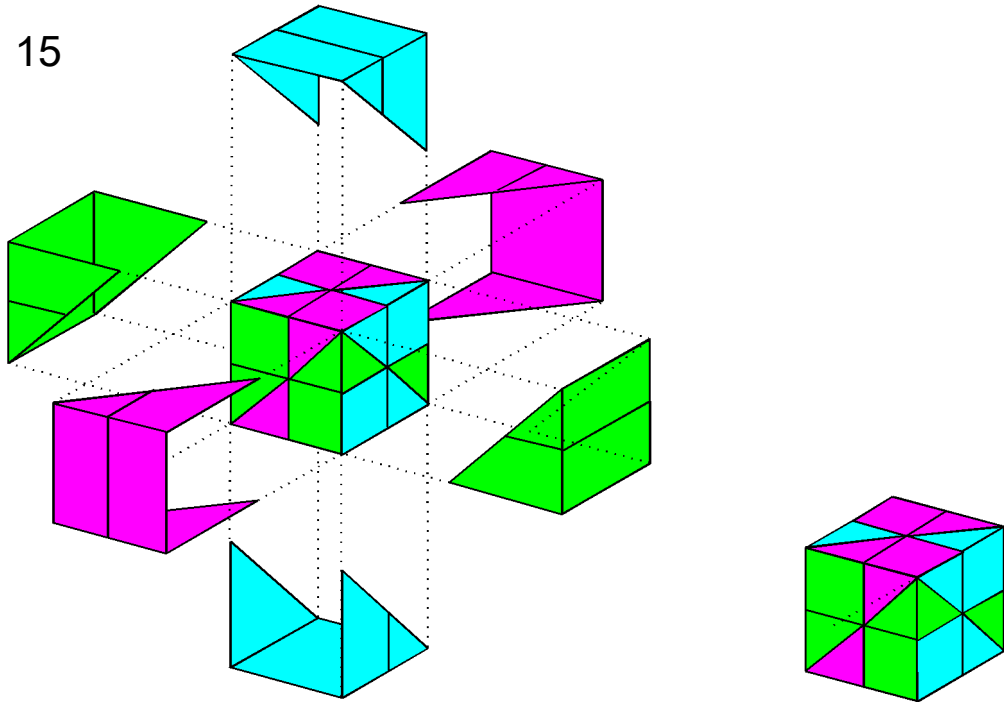


13. The arrows indicate the location of the pockets.

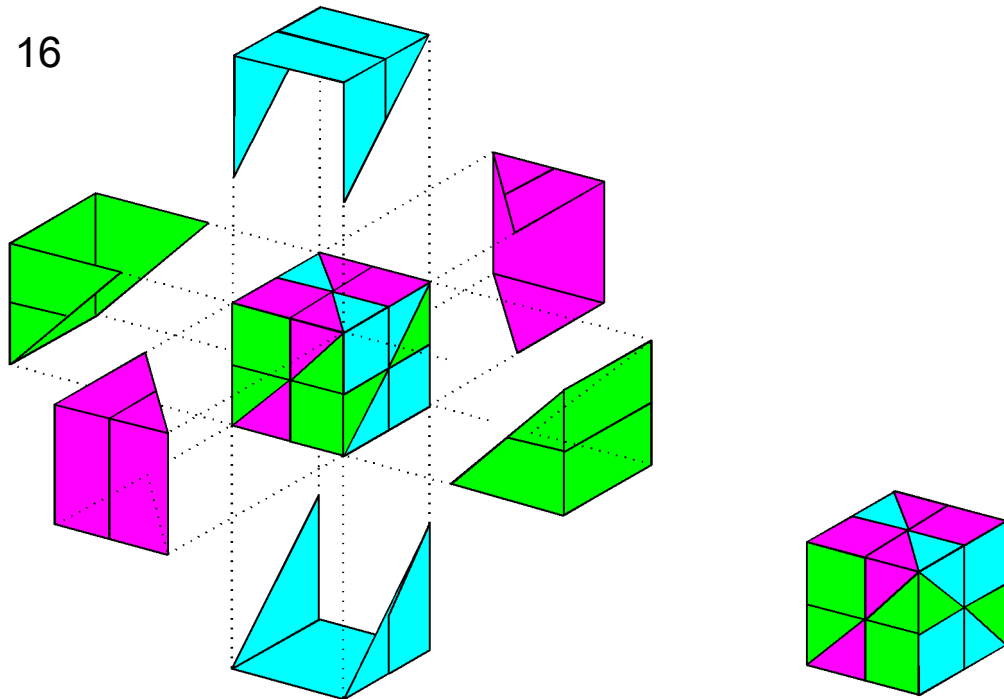
There are three ways to make a three-colour 6-part Letterbox cube using triangle modules arranged so that the modules of each colour are opposite each other.



15



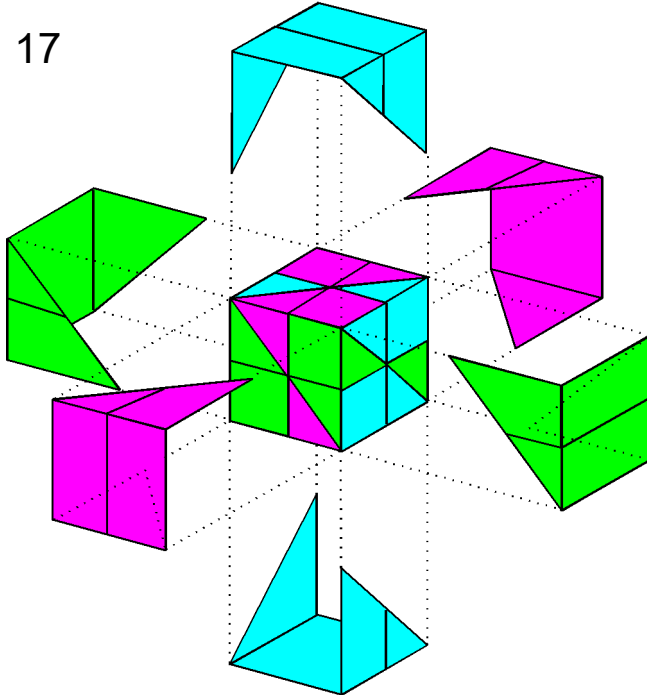
16



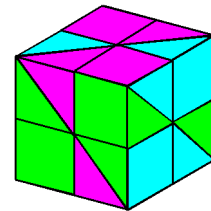
You can, of course, also make 6-part Letterbox triangle cubes with the colours arranged in the other ways explained using parallelogram modules.

## Mongrel 6-part Letterbox Cubes

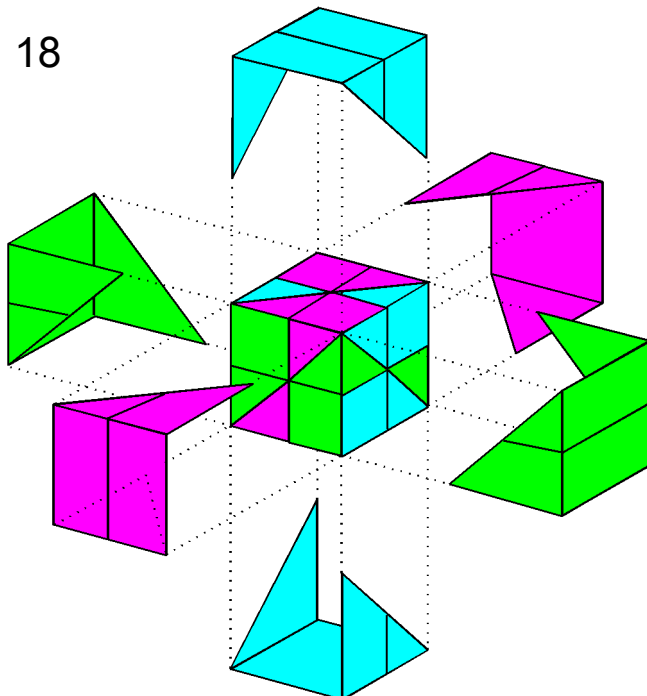
17



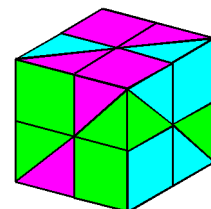
17. Mongrel cube made by combining four left handed and two right handed parallelogram modules.



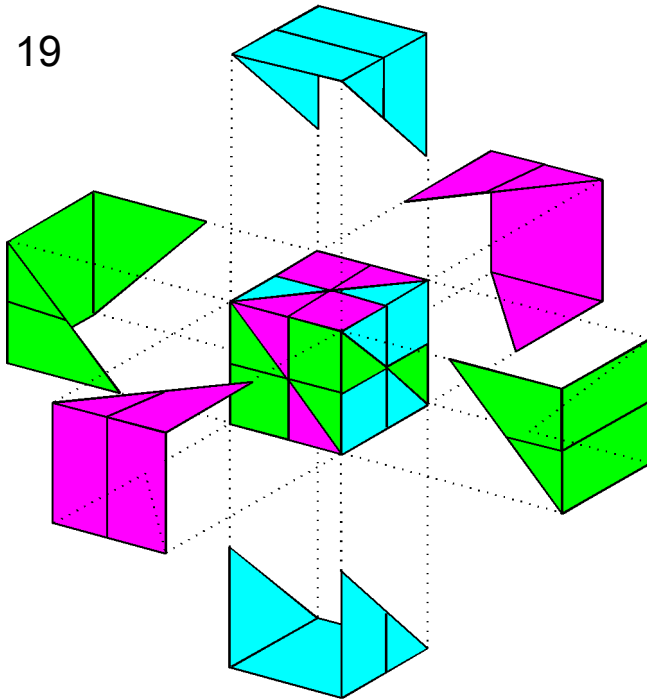
18



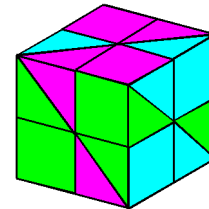
18. Mongrel cube made by combining two left handed and four right handed parallelogram modules.



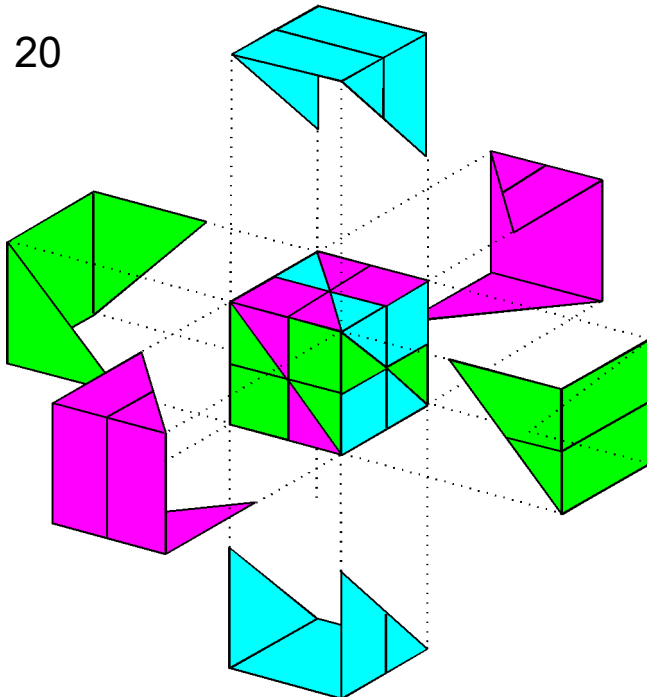
19



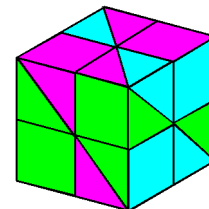
19. Mongrel cube made by combining four left handed parallelogram modules and two triangle modules.



20

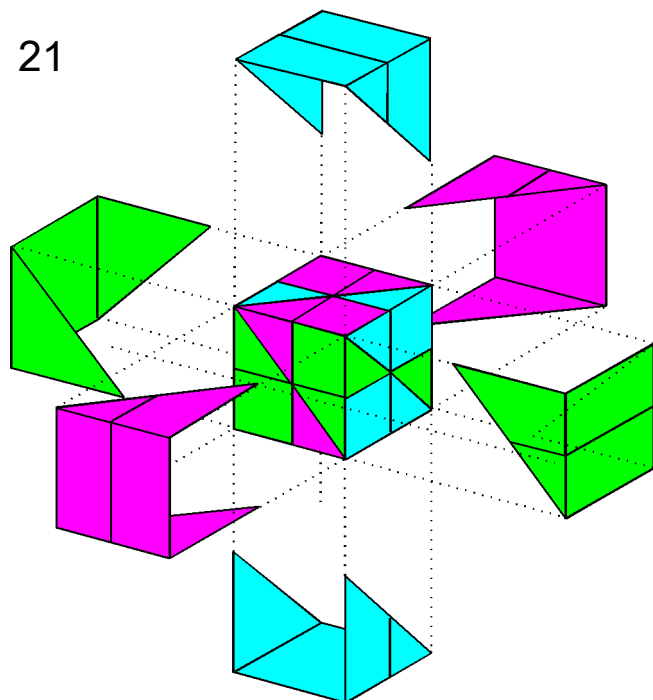


20. Mongrel cube made by combining two left handed parallelogram modules, two right handed parallelogram modules and two triangle modules.

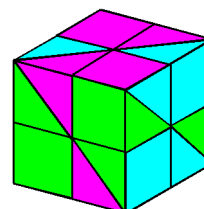




21



21. Mongrel cube made by combining two left handed parallelogram modules and four triangle modules.



Copyright David Mitchell 2016  
[www.origamiheaven.com](http://www.origamiheaven.com)