

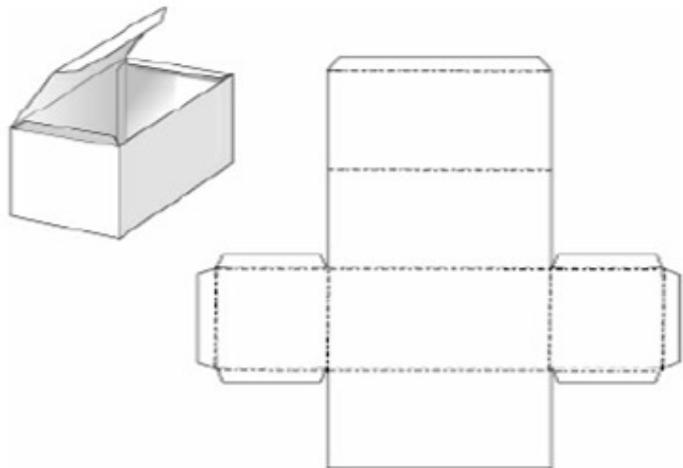
S3 Graphics Homework Surface Developments

Name:

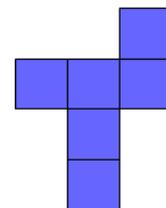
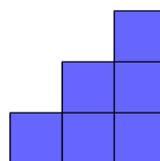
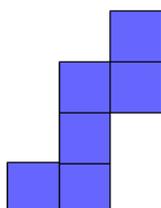
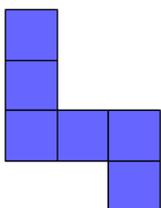
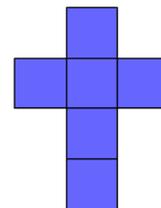
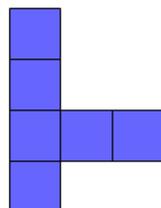
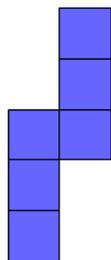
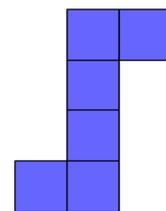
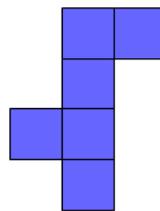
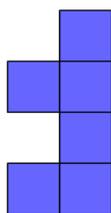
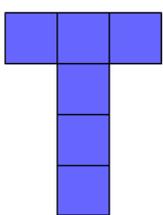
Class:

What is a Surface Development?- A flat surface drawing showing the shape of material required to build an object.

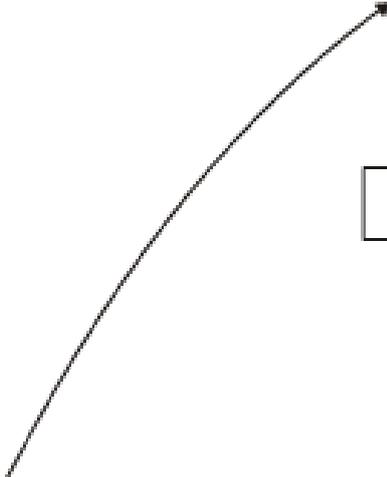
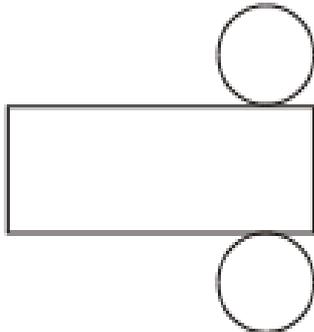
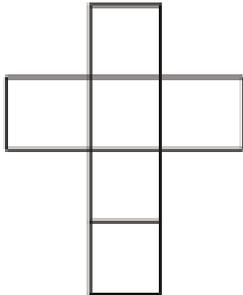
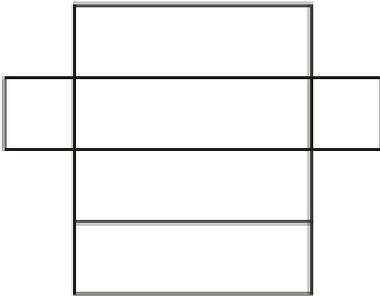
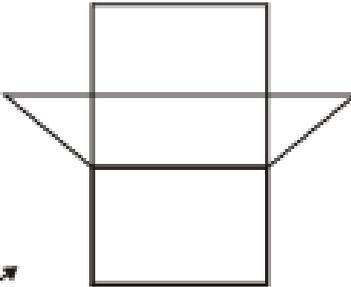
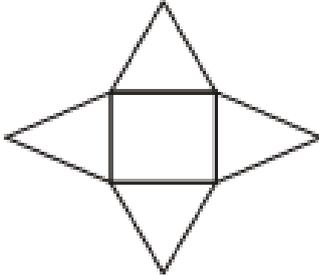
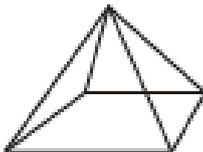
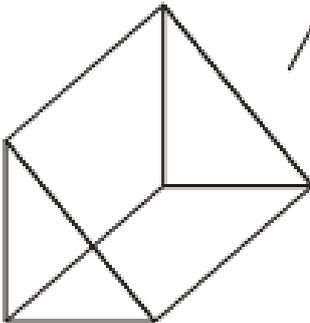
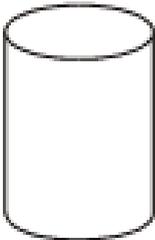
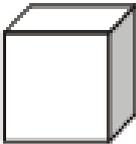
Surface Developments (Nets) :
This type of orthographic is very common. Developments are needed when an object is to be folded up to create a hollow form (like a box). Remember to add fold lines to show how the development folds!



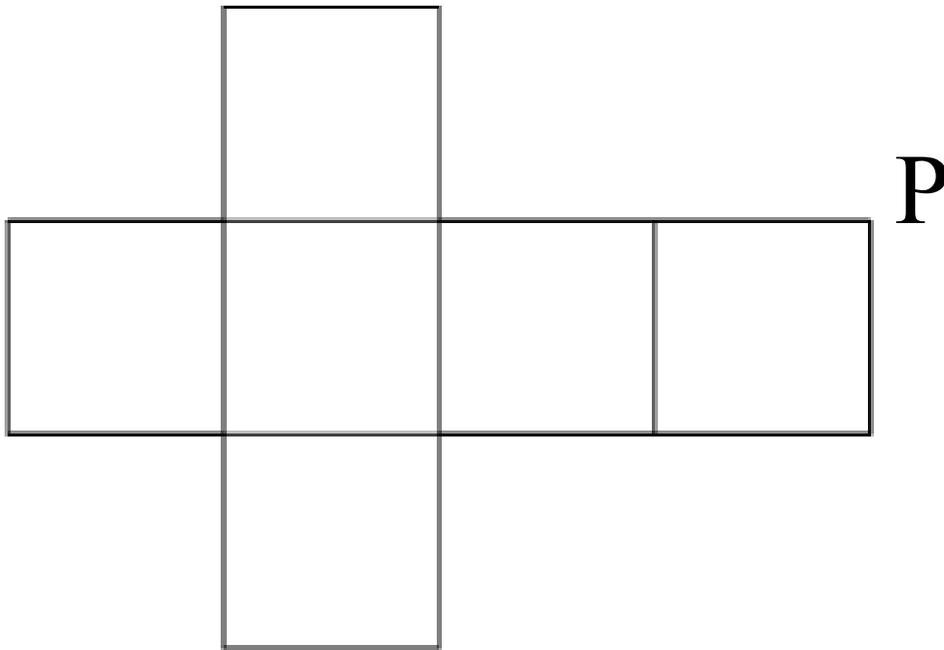
1. Circle or sketch the four shapes that are not real nets of a cube.



2. Match the 3D solids with their net.

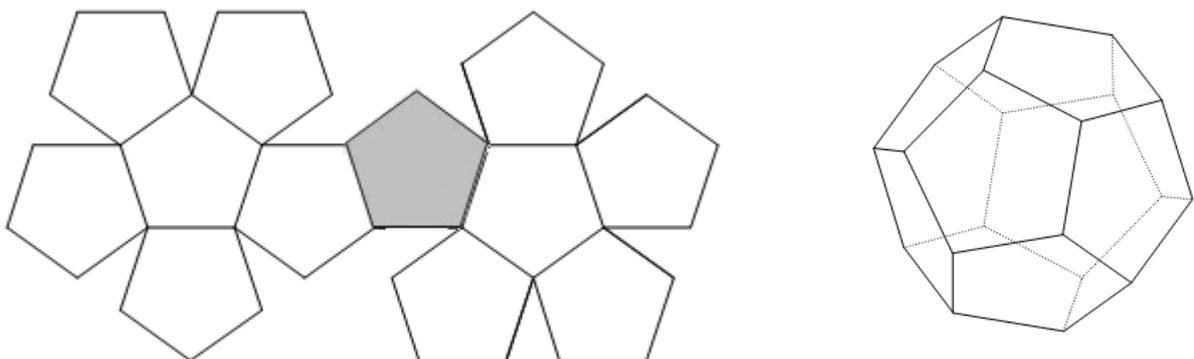


3. The net below is folded to make a cube. Which two corners would meet at **P**.



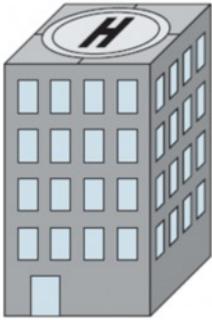
(2)

4. The net shown below is folded to make a Dodecahedron. Identify the face of the net that will end up directly opposite the shaded one.

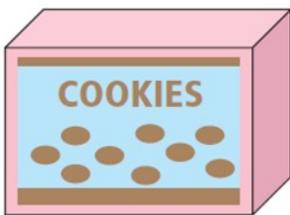


(1)

5. Name the type of prism shown below and sketch the surface development for each. (Do not include detail like windows and text. Show fold lines if required.)





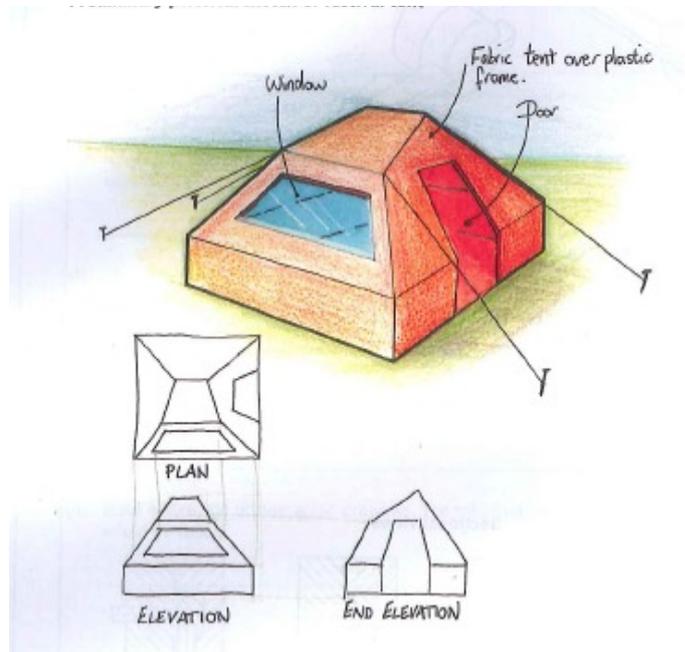




chocolate bar

6. An outdoor supplies company is designing a range of tents for young people to take to music festivals. One of their designers has made preliminary pictorial and orthographic sketches for a possible new tent as shown below.

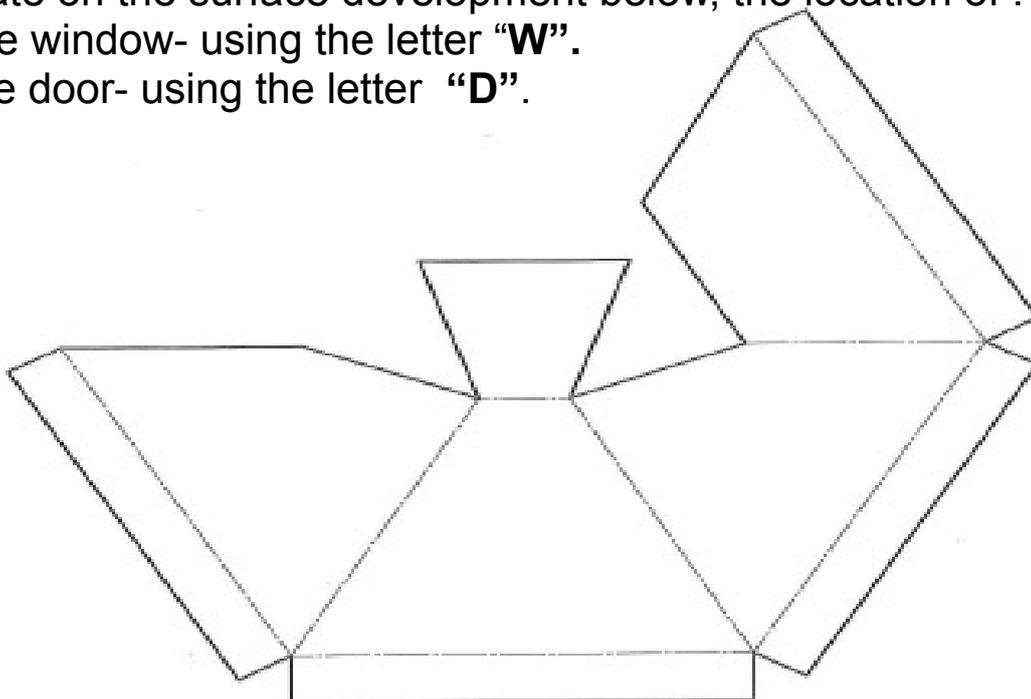
Preliminary pictorial sketch of festival tent.



Preliminary orthographic sketch of festival tent.

The tent fabric is made from a single sheet. A surface development showing the outer surface of the tent fabric is shown below.

- Indicate on the surface development below, the location of :
- (i) the window- using the letter "W".
 - (ii) the door- using the letter "D".



Surface development of tent fabric

7.



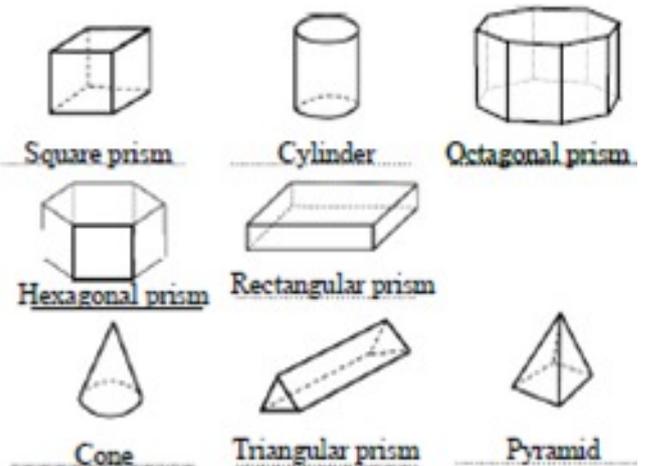
Project: Toy Castle

A toy shop has completed a recent survey of customers asking what they are interested in buying. The survey results showed an interest in a toy castle made from wooden building blocks. The shop has asked you to design a toy castle for them. They require drawings to be produced and sent away so the castle can be manufactured.

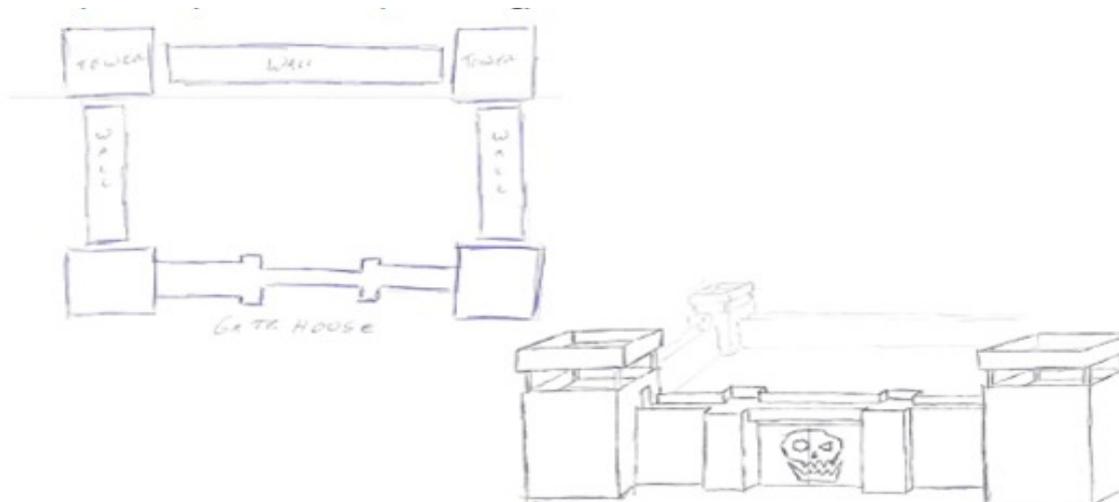
On the following page sketch some ideas for your design. Use both Orthographic and Pictorial techniques. An example is shown at the bottom of this page.

Things to Consider.

Which forms will you use to construct your model? In the example below The pupil used many square and rectangular prisms.



Which type of pictorial views? (perspective, isometric, oblique). The example shown below is oblique sketching.



Use this space for your orthographic sketch:

(3)

Use this space for your pictorial sketch:

(3)