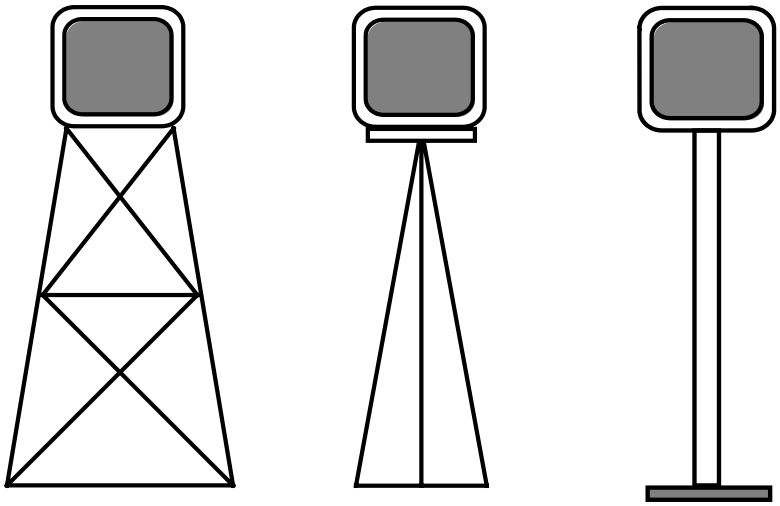
EXAMPLE DESIGN BRIEF: MONITOR STAND

You have been commissioned to produce a set of display stands for a company.

They would like to support a display monitor at a height of two metres so that their promotional video can be seen above the surrounding stands.

The main constraints are:

- The floor area is fairly expensive to hire.
- The structure must be absolutely safe (a falling TV set injuring a customer would be a public relations disaster for a structural engineering firm).
- The structure should project the image of the company and be smart and stylish.
- The product needs to be portable; the company would like to pack it up and move it from one exhibition to another in a car.



Important research and development investigations might include:

- Studies into the stability of the tower-type structure which supports the monitor. How much weight would you have to put into the base of the structure to make it stable to typical sideways blows or tilting?
- Studies into the bending of parts of the structure, e.g. the shelves or ledges which project from the boards. Will they bend too much under a large weight? Can or should they be supported by a strut or cable?

ACTIVITY

Think about the research and development your design might need.

Is stability and rigidity likely to be a problem?

Why? What can you do about it? Could you experiment with a model to help develop your design?