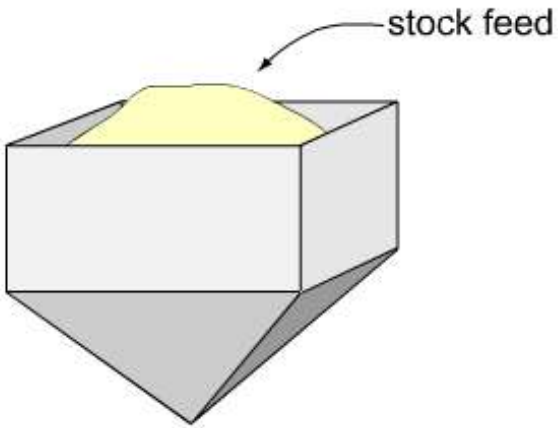
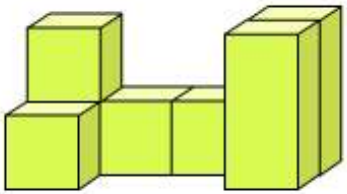
The diagram shows a feed bin on a farm.



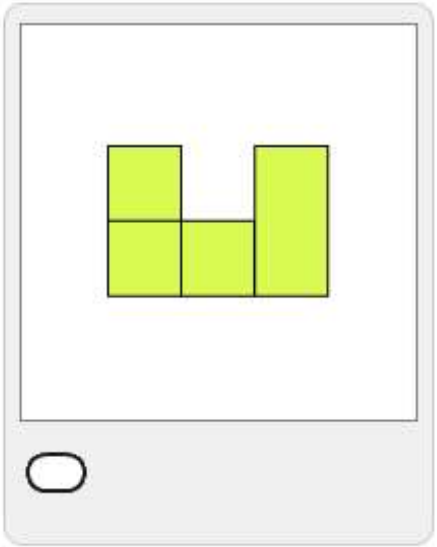
What two solids make up the feed bin?

- Rectangular prism and rectangular pyramid
- Rectangular prism and triangular pyramid
- Rectangular pyramid and triangular prism
- Rectangular pyramid and cone

Using blocks, Carson built a solid.

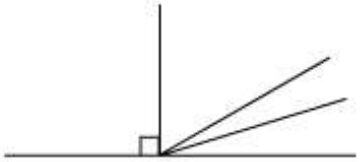


Which of these is the front view of Carson's solid?



The diagram shows some angles drawn from a common point.

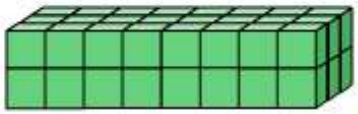
A right angle is shown.



How many different acute angles can be seen in this diagram?

- 4
- 5
- 6
- 7

A solid is made up of 48 small cubes joined together.



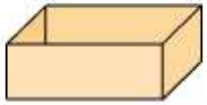
All six faces of the solid are to be painted.

After the paint is dry, the solid will be pulled apart again and separated into the 48 small cubes.

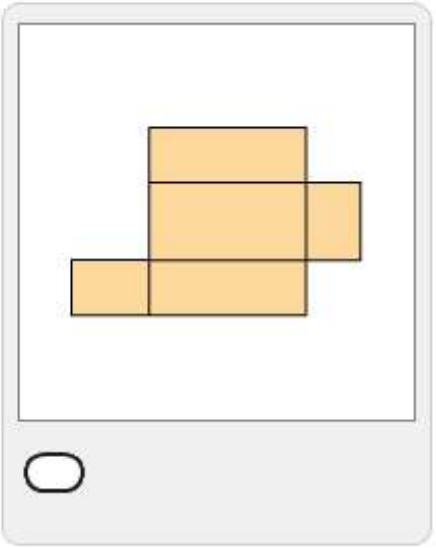
How many cubes will only have one face painted?

- 12
- 20
- 24
- 26

This box has no lid.



Which could be the net of this box?

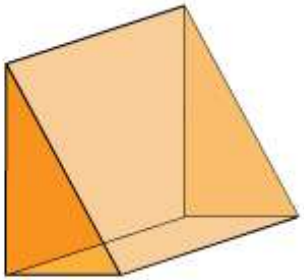


A pilot was flying in a northerly direction.

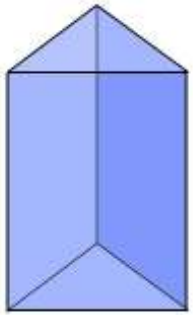
If she turned through an angle of 135° in an anticlockwise direction, in what direction would the plane be travelling?

- South-East
- South-West
- North-East
- North-West

A cross-section is a slice of a prism, parallel to the base.



Solid A

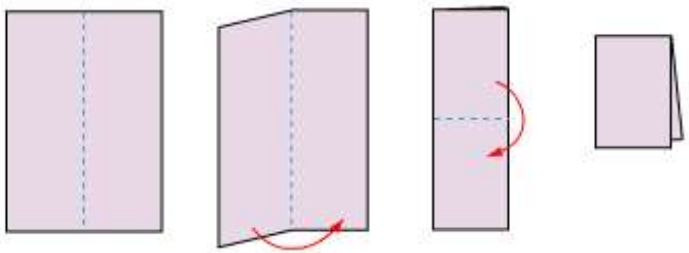


Solid B

In which of the solids is the cross-section a triangle?

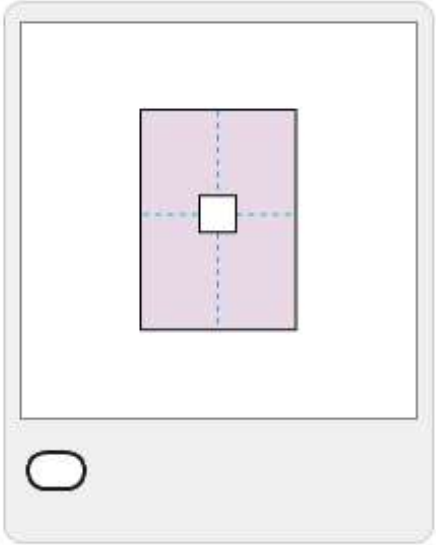
- Solid A only
- Solid B only
- Both Solids A and B
- Neither Solid A nor Solid B

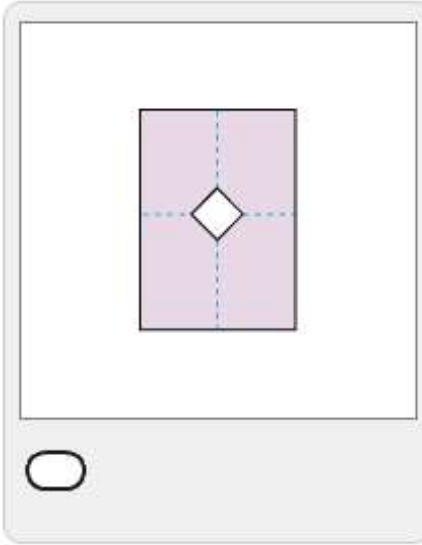
Oliver folded a piece of paper in half and then folded it in half again by folding the top down as shown in the diagram.

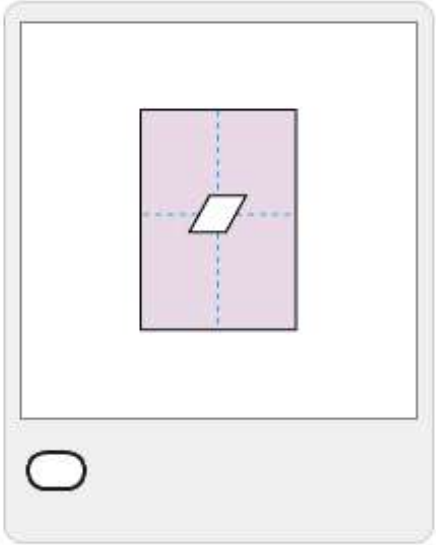


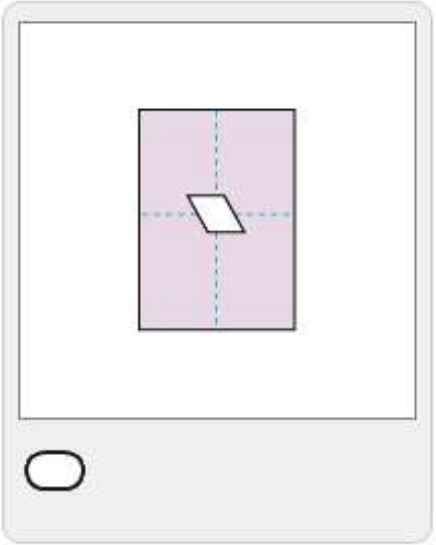
Oliver then cut a piece from the top left corner: 

What did his paper look like when he unfolded it?



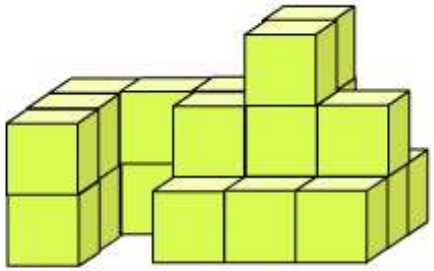






This object is made from 24 blocks.

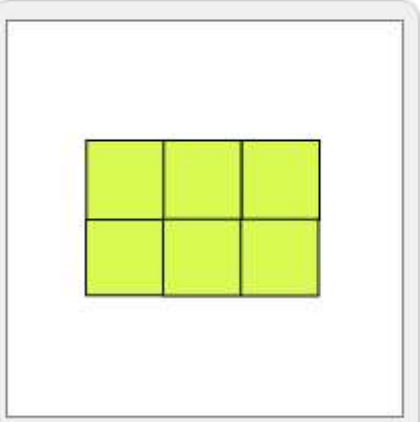
Left

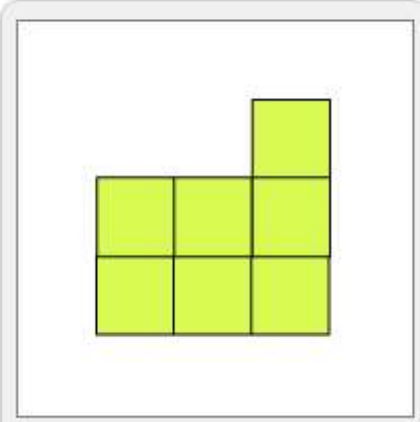


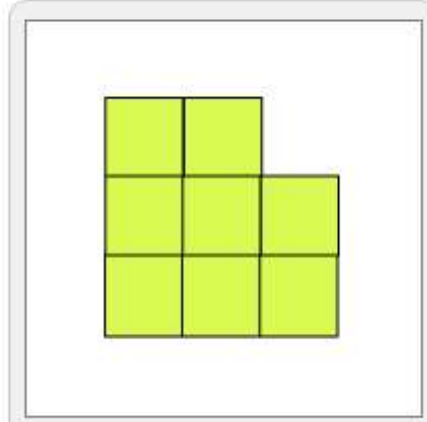
Front

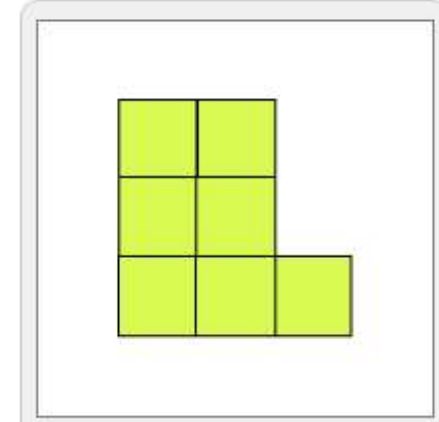
Right

What is the view from the left side?



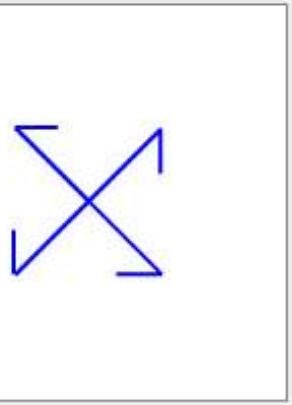


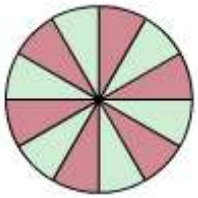


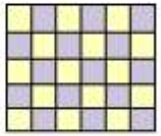


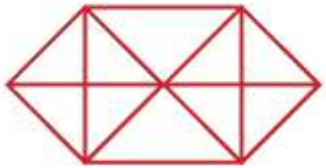
A design has half-turn symmetry if it looks the same when turned (about its centre) through half a turn or 180 degrees.

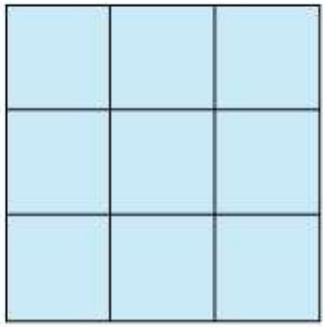
Which of these designs does not have half-turn symmetry?







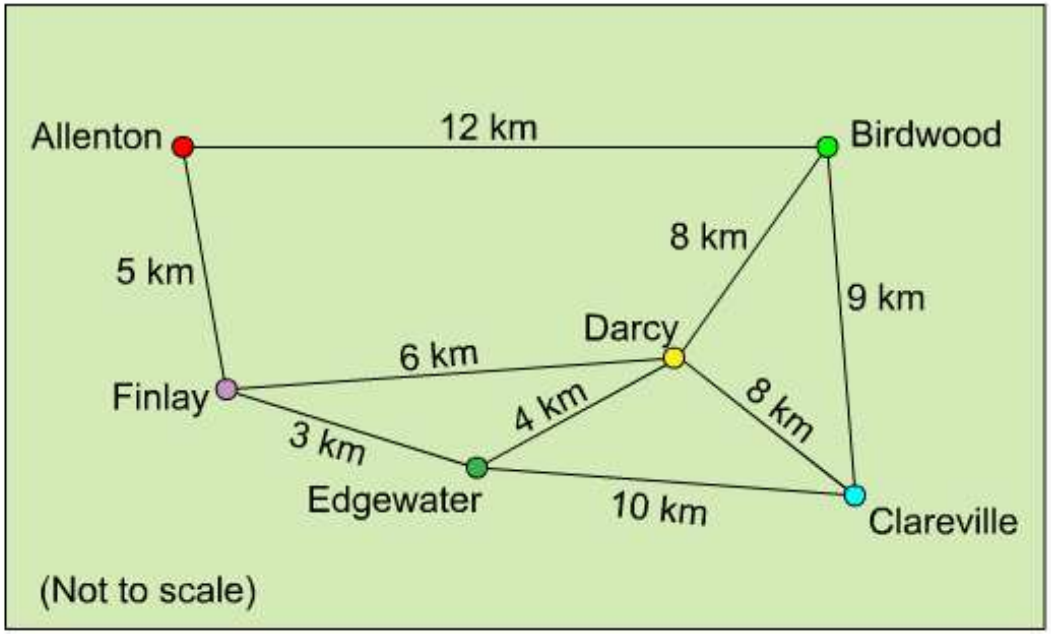




How many squares are in the figure?

- 9
- 10
- 14
- 15

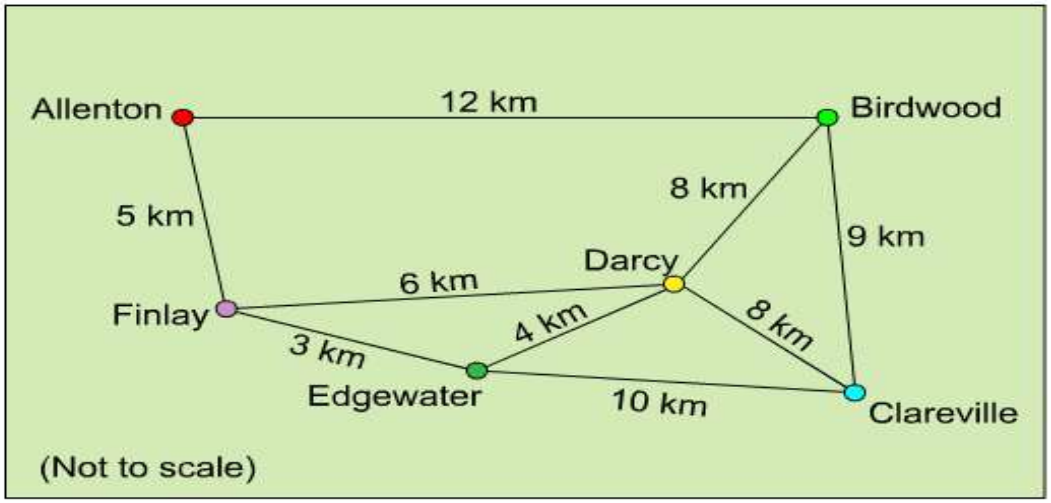
The diagram shows a map of the towns in the local area and the distances along the roads between them.



What is the shortest distance from Allenton to Clareville?

- 21 km
- 20 km
- 19 km
- 18 km

The diagram shows a map of the towns in the local area and the distances along the roads between them.

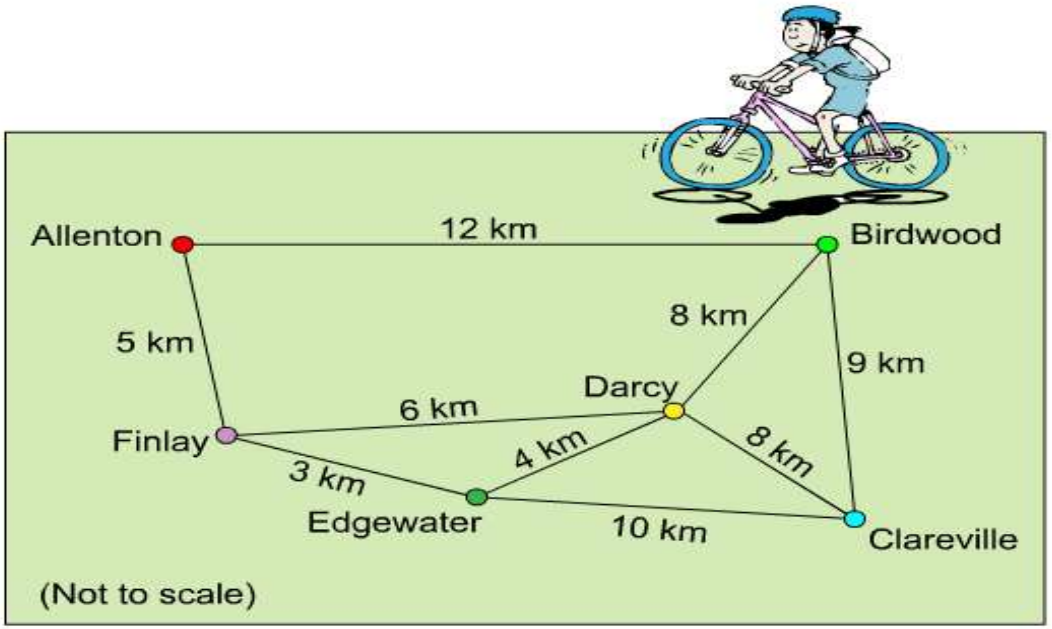


Toby travels from Clareville through Edgewater to Finlay. Jordan travels from Clareville through Birdwood and Allenton to Finlay. Jordan travels at twice the speed of Toby.

Who should arrive at Finlay first?

- Toby
- Jordan
- They should both arrive at the same time.
- There is not enough information to determine who will arrive first.

The diagram shows a map of the towns in the local area and the distances along the roads between them.



Piret intends to ride her bike from Birdwood to Finlay, stopping at Darcy for 15 minutes and at Edgewater for half an hour. If she rides at 10 kilometres per hour, how long will it take Piret to travel from Birdwood to Finlay?

- Less than one hour
- Between 1 and $1\frac{1}{2}$ hours
- Between $1\frac{1}{2}$ and 2 hours
- More than 2 hours

Natasha drew a solid that had four triangular faces and one rectangular face.

What type of solid did Natasha draw?

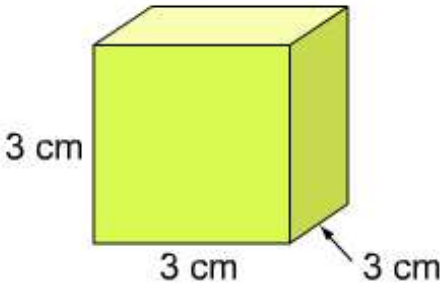
- ⬭ Triangular prism
- ⬭ Triangular pyramid
- ⬭ Rectangular prism
- ⬭ Rectangular pyramid

The time on the clock is 12:30.

If the minute hand travels through an angle of 270°, what will be the time on the clock?

- 1:15
- 1:30
- 1:45
- 2:15

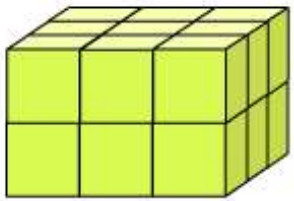
A cube has sides of length 3 cm.



What is the sum of the lengths of all the edges of the cube?

- 9 cm
- 18 cm
- 24 cm
- 36 cm

The solid is a rectangular prism made from small cubes.



How many cubes of **any size** are in the solid?

- 18
- 22
- 23
- 25

An air force plane is flying in a south-easterly direction.

The pilot is instructed to change direction and fly in a southerly direction.

Through how many degrees will the plane turn?

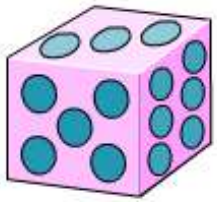
45°

75°

135°

165°

The numbers on the opposite faces of this cube add to 7.



The cube is rolled to the left (over the bottom left side edge), and then rolled over the new bottom front edge twice.

What number is now on top?

- 1
- 2
- 4
- 5