Solutions

3. Compare the top views of a cube and a square-based pyramid. How are their top views different from each other?

The pyramid has a dot in the centre to represent that it is a pyramid.
4. Draw the front, top, and side views of this figure.

5. Sketch the front, top, and side views of each three-dimensional figure.
   a) pentagonal prism  b) pentagonal pyramid
6. Sketch the front, top, and side views of each three-dimensional figure.
   a) hexagonal prism
   b) octagonal prism
   c) decagonal prism

7. The top views of some objects are shown. Name two possible three-dimensional figures each might be.
   a) Cylinder
   b) Cube
8. Identify each geometric figure from the front, top, and side views.

a) Hexagonal based pyramid

b) Triangular based prism

9. The diagrams show the front, top, and side views of an object. Make a sketch to show the overall shape of the three-dimensional object.
10. Sketch the front, top, and side views of each three-dimensional object.
   a) carton of milk
   b) CD box
   c) can of pop

11. Choose three objects in your classroom with different shapes and sketch the front, top, and side views of each.
12. a) Draw three views of a skateboard ramp.

b) If the ramp is curved, which view will change? Draw what it might look like.

The front view will change.

13. Suppose you have a rectangular prism and a triangular prism.

a) Is it possible for these two polyhedra to have the same top view? Explain.

b) Is it possible for these two polyhedra to have the same side view? Explain.

c) Is it possible for these two polyhedra to have the same front view? Explain.

a) Yes. They can have the same length and width.

b) Yes. They can have the same width and height.

c) No. One is a triangle and the other is a rectangle.
14. Draw the front, top, and side views for each combination of simple objects.

a) two cubes placed horizontally side by side

b) one square-based pyramid placed on top of a cube

c) one cylinder placed on top of a cube

15. Find all the ways that four cubes can be placed on the table so that at least one face of each cube is matched with one face of another cube. Draw the front, top, and side views for each figure.

We need the pieces from the game TETRIS