

- (7) The three visible edges of the chimney can be found in the perspective, edges h, i and j.
- (8) In order to find the height of the chimney we need a 12 m height line. The edge hi is extended to hit the picture plane. Where it hits the picture plane it is dropped to the perspective. 12 m is measured on this line and vanished to VP1. The height line is vanished to VP1 because the edge that was extended, edge hi is parallel to S, VP1. The perspective is finished as shown in Fig. 7.14d.

Fig. 7.14d

Circles and Curves in Perspective

We have already established that if a circle is parallel to the picture plane the perspective view of it will be circular. If the circle is inclined to the picture plane we generally get an ellipse.

Fig. 7.15 shows how the circle is divided up into ordinates and from these the circle is built up point by point. The height line is found first by extending the front face of the cylinder to intersect the picture plane. Half the elevation is constructed on this height line in order to find heights for the perspective. The elevation is divided up into divisions using ordinates. The same ordinate spacing is used in the plan and the perspective is built up as shown using these ordinates.

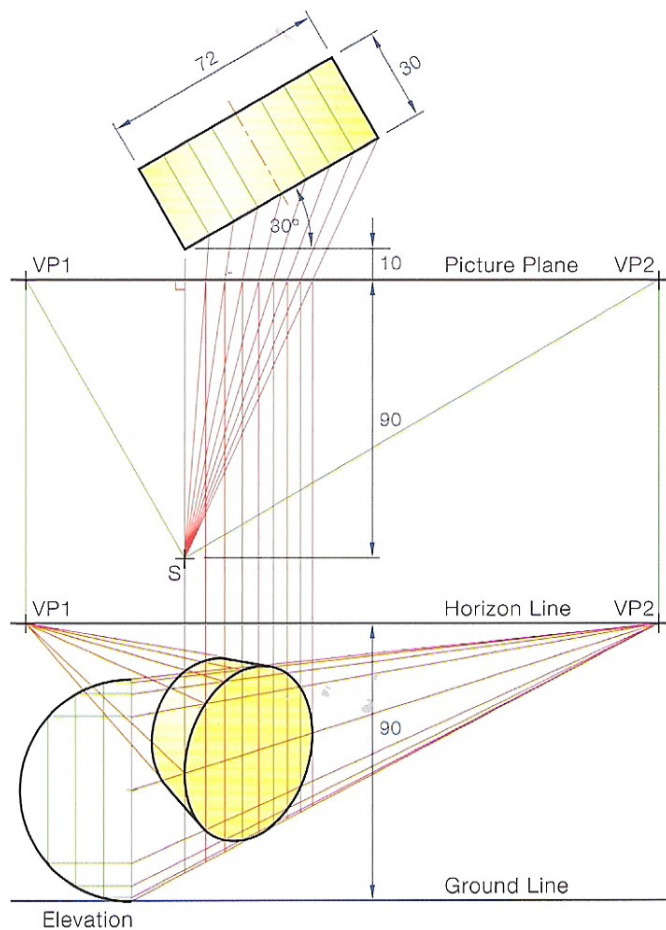


Fig. 7.15

Activities

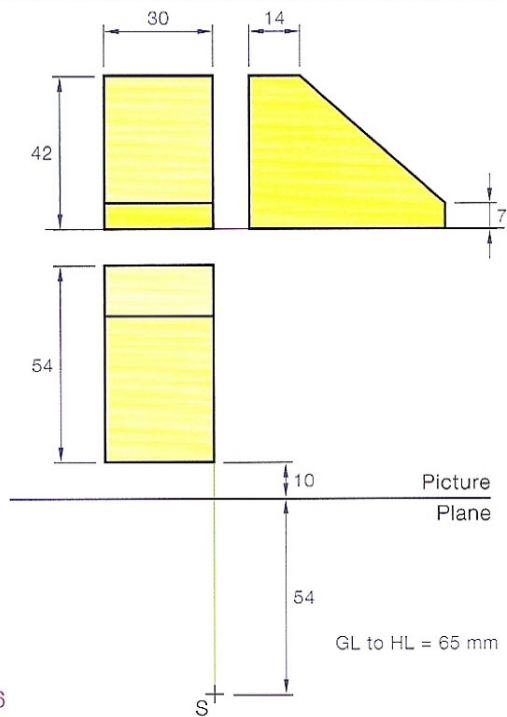


Fig. 7.16

Q1. Fig. 7.16

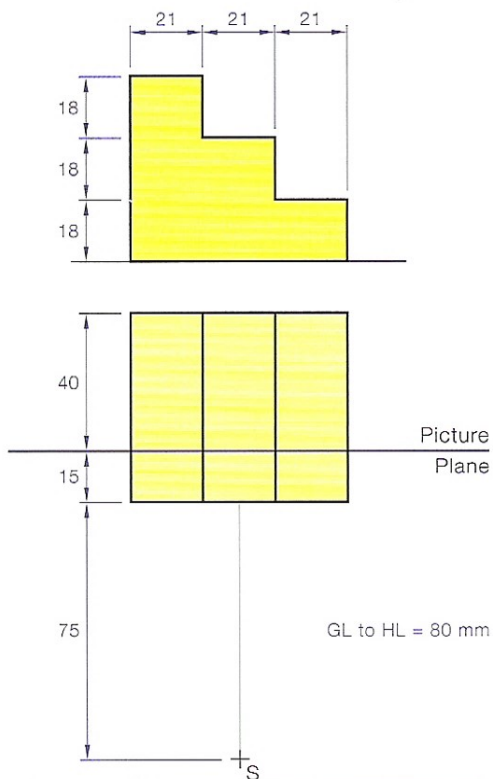


Fig. 7.18

Q3. Fig. 7.18

Q1. TO Q6.

Draw a one-point perspective of the solids shown in Q1. to Q6.

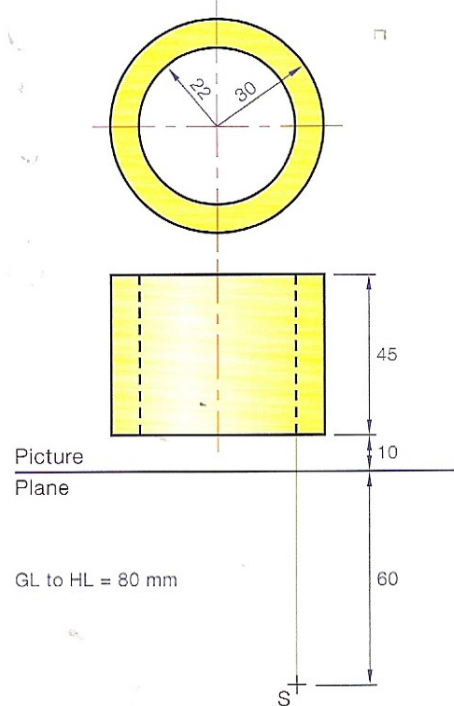


Fig. 7.17

Q2. Fig. 7.17

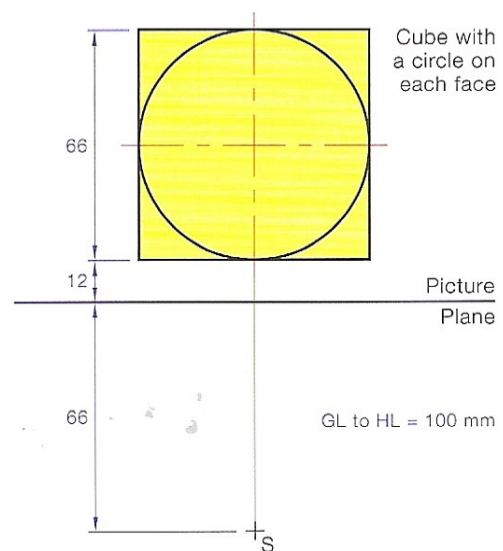


Fig. 7.19

Q4. Fig. 7.19

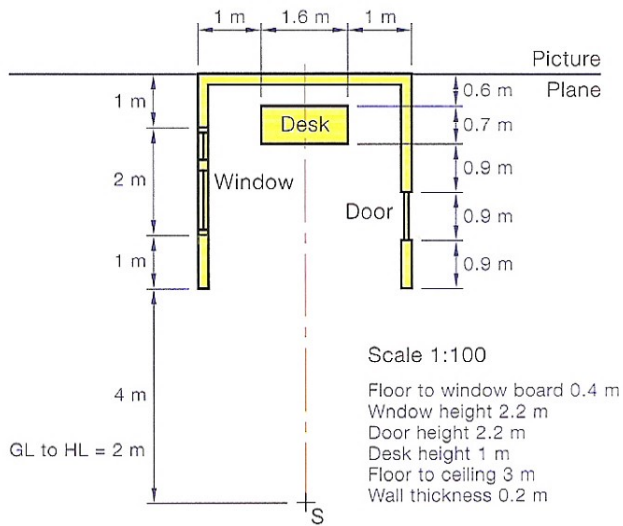


Fig. 7.20

Q5. Fig. 7.20

Q7. TO Q12.

Make a two-point perspective of the various objects using the information given. The picture plane is to pass through corner A.

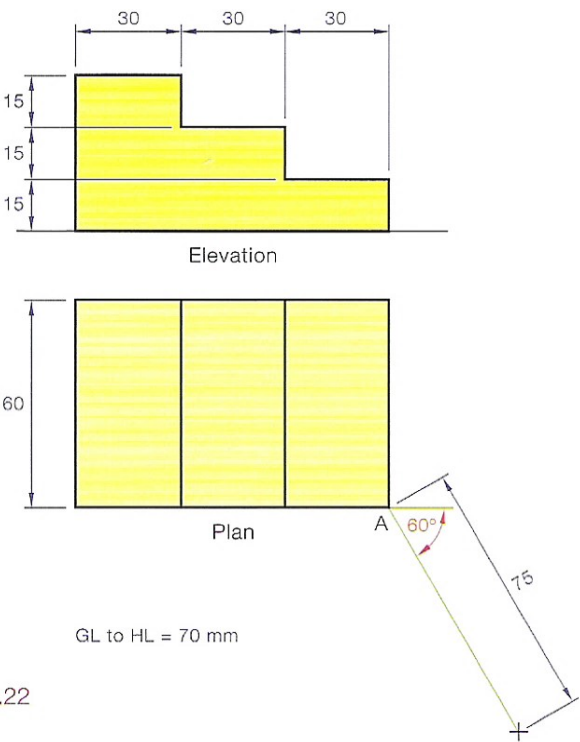


Fig. 7.22

Q7. Fig. 7.22

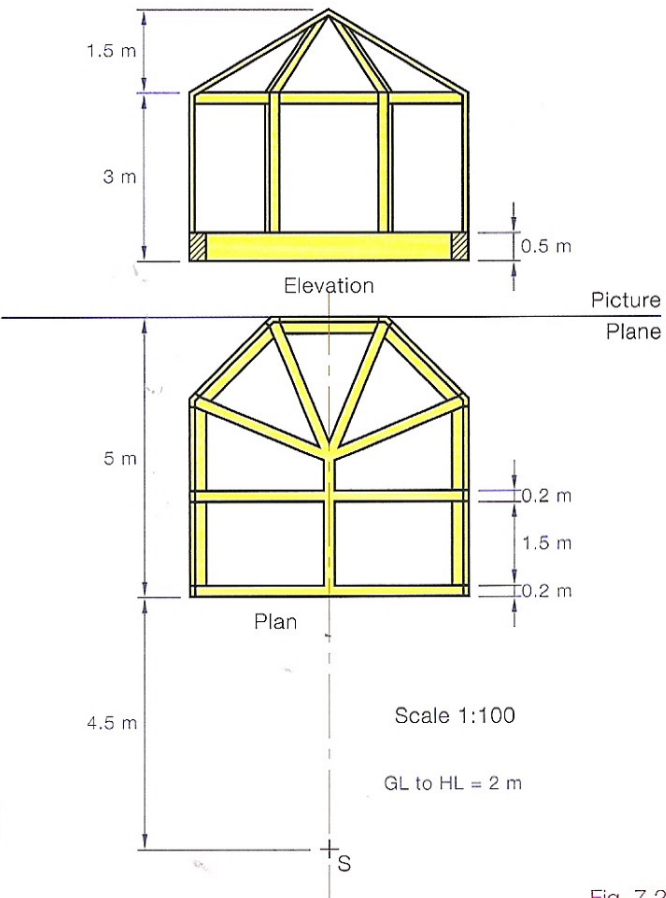
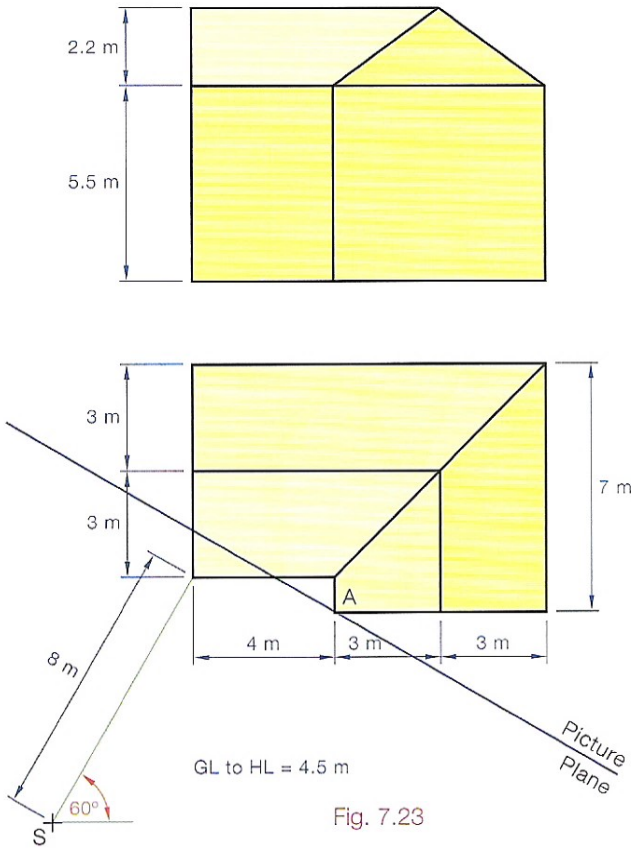
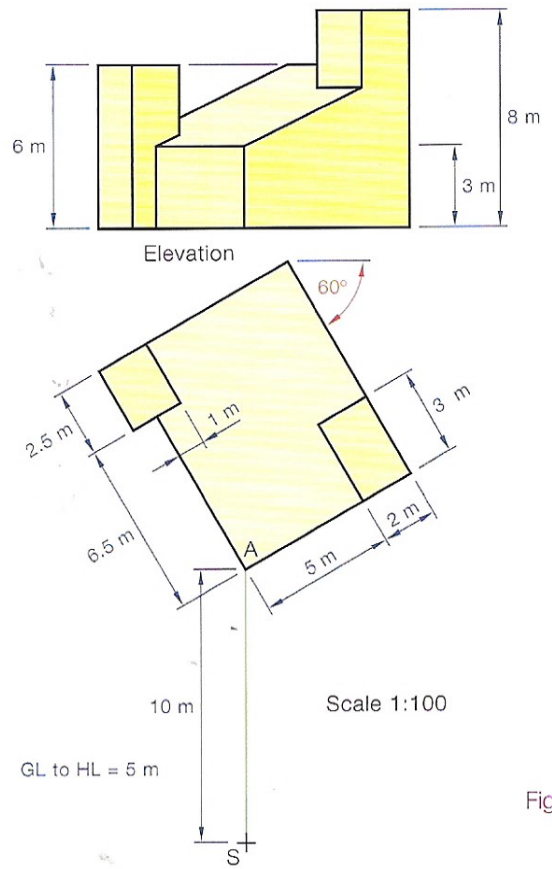


Fig. 7.21

Q6. Base wall is 0.3 m thick. The plan is based on an octagon. Conservatory frame is 0.1 m thick, Fig. 7.21.



Q8. Fig. 7.23



Q9. Fig. 7.24

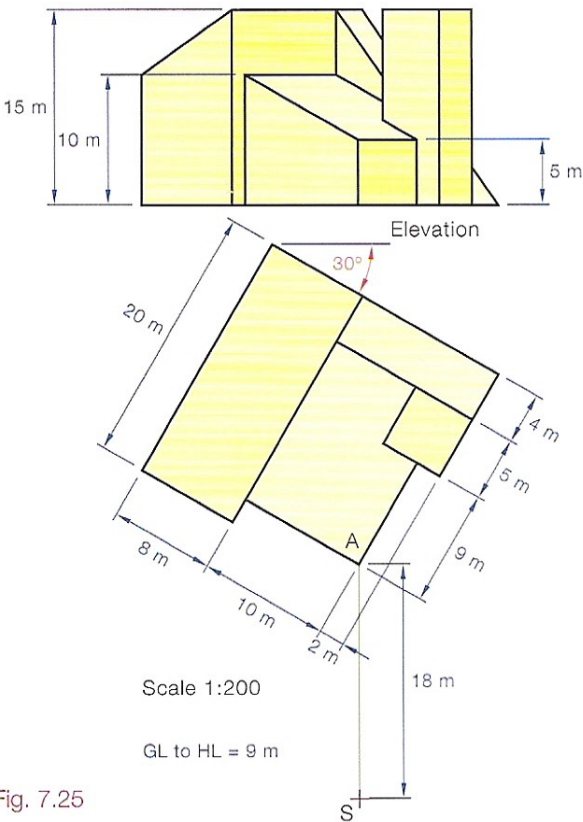


Fig. 7.25

Q10. Fig. 7.25

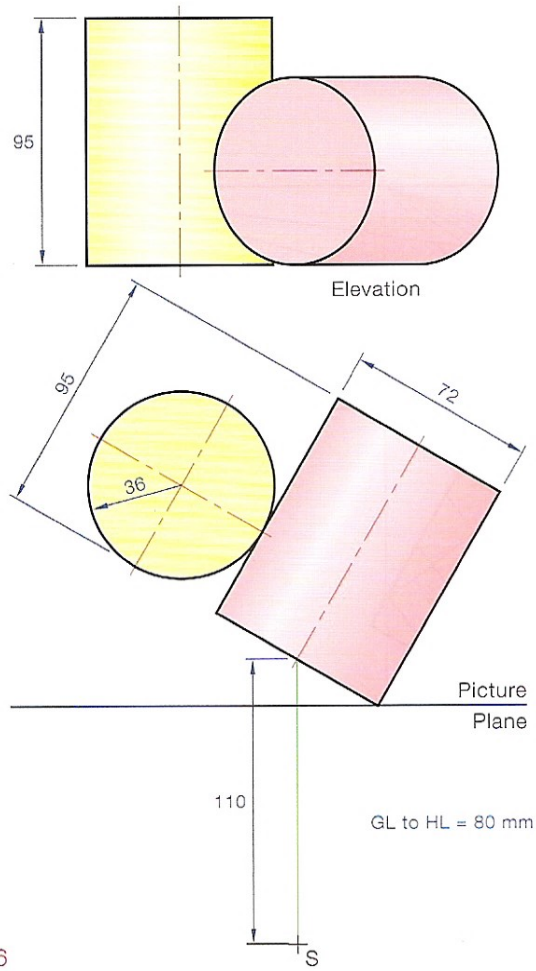


Fig. 7.26

Q11. Fig. 7.26

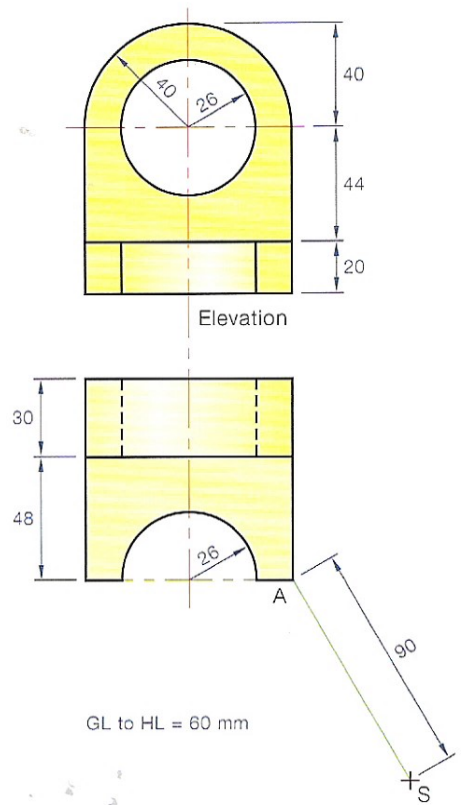


Fig. 7.27

Q12. Fig. 7.27

Vanishing Points of Inclined Lines

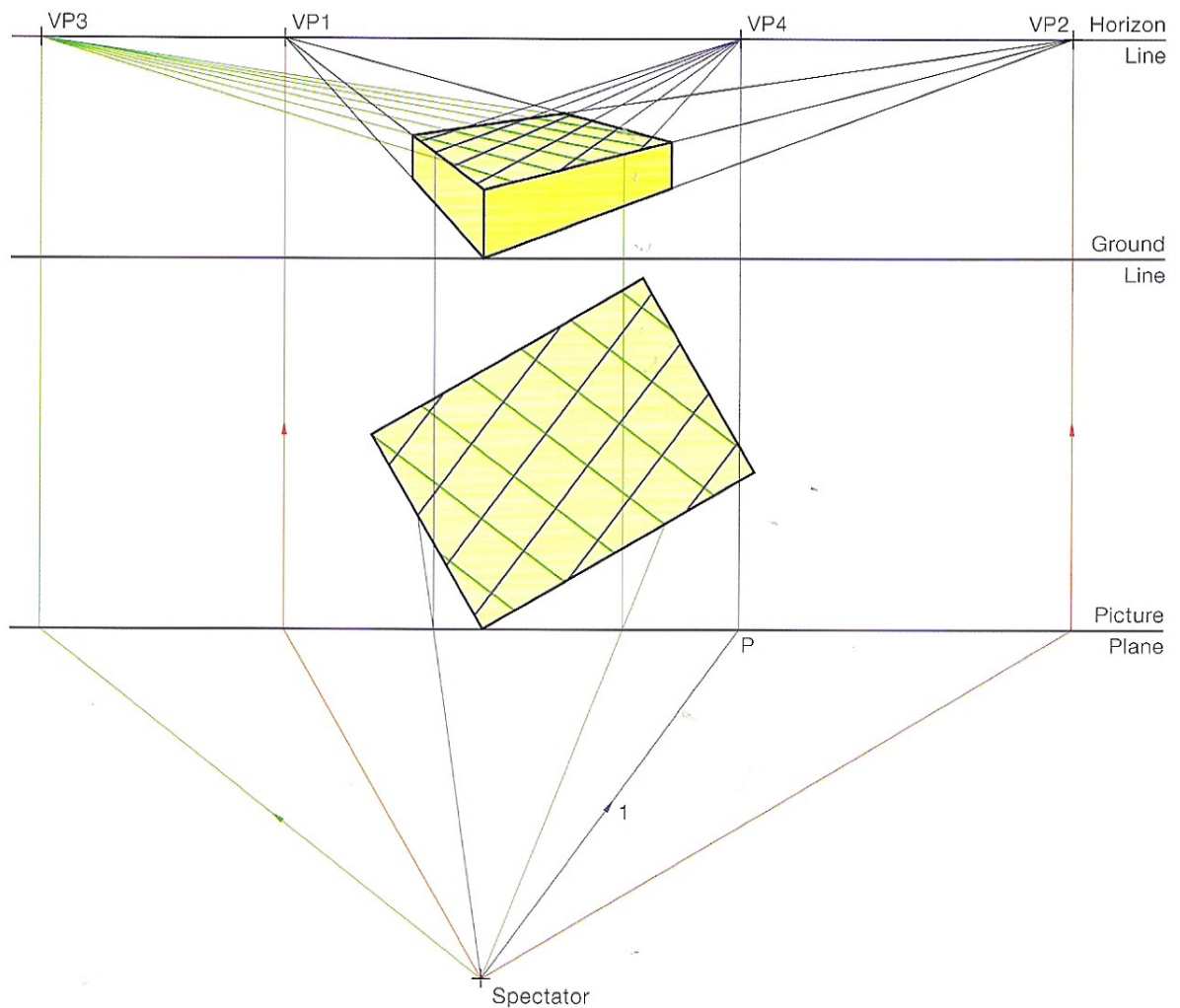


Fig. 7.28

For all the perspectives we have dealt with so far we have used vanishing points of horizontal lines. The vanishing points have been found on the horizon line. **Vanishing points for horizontal lines will always be found on the horizon line.** Furthermore, parallel lines vanish to the same vanishing point, see Fig. 7.28.

The parallel blue lines on the prism's top surface are horizontal and therefore will vanish to a vanishing point (VP) on the horizon, VP4. This vanishing point is found, as for all lines, by finding the piercing point in the picture plane of a line drawn from the spectator, parallel to the given line. A line is drawn from S parallel to the blue set of lines and is continued to the picture plane at p. Point p is projected to the horizon line giving VP4. A similar approach can be used for the green set of lines.

Sets of parallel inclined lines vanish to vanishing points either above or below the horizon line and these vanishing points, are called **auxiliary vanishing points**.

Lines which are sloping upwards as they go away from the spectator will have an auxiliary vanishing point above the horizon.

Lines which are sloping downwards as they go away from the spectator will have an auxiliary vanishing point below the horizon.