

1. The Pythagoras theorem

1. The angle of elevation of the top of a tree from a point P on the horizontal ground is 24.5° . From another point Q, five metres nearer to the base of the tree, the angle of elevation of the top of the tree is 33.2° . Calculate to one decimal place, the height of the tree
2. A block of wood in the shape of a frustrum of a cone of slanting edge 30 cm and base radius 10cm is cut parallel to the base, one third of the way from the base along the slanting edge. Find the ratio of the volume of the cone removed to the volume of the complete cone.