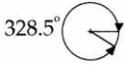


328.5°

On paper, describe a circle with the radius LK .



Set off the angle of 328.5° with a protractor.

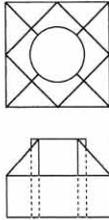


This development is complete.



The Tail

Below is the tail as seen from the front and the top. A third view from the side would have been redundant: it would have appeared exactly the same as the front view.



In developing the body and nose of the bomb, one view was enough for finding the true lengths of the necessary lines, however no one drawing of the tail section gives us the true lengths of all its shapes. (A true length is defined as a line that is parallel to its given view.) We must therefore piece together the shapes from the two views.

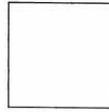
Note: Finding true lengths is essential for the card model designer. In the literature referenced at the end of the article the reader will find extensive treatments on "the finding of true lengths." In fact, most drafting texts devote a full chapter to this topic. I touch on one basic method in this article, but I will return to this subject in future issues.

From the top you can see that the skirt of the tail is a

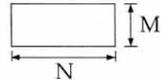
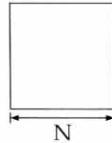
is a diamond within a square. From the front the fins appear as wedge-shaped sections that extend from the corners of the outermost square up to the top of the lower cylinder and its intersection with the truncated cone.

We will develop the tail from the outside/in, working first from the square skirt to the inner diamond and onto the fins.

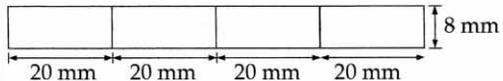
Removing all but the outermost skirt in the two views, we have:



From the front view we find the true lengths of width (N) and height (M), 20 mm and 8 mm, respectively. From the top view we see that we need four of these sections to build the complete skirt.



Using the width (M = 20 mm) and height (N = 8 mm), step off four sections with your ruler and compass.



The development is complete.

