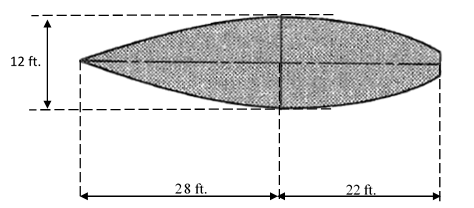
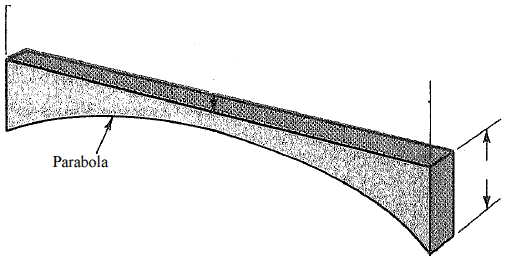
**Problems: Area Between Curves**

**Problem 1:** The figure below is a sketch of a deck of a ship which has the shape of two intersecting ***parabolic*** curves. Find the area of the deck. ***Be sure to indicate where you chose your origin (0,0) to be in the figure!***

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**Problem 2:** The figure below represents a concrete roof beam for an auditorium. It has a straight top edge and a ***parabolic*** lower edge. Find the volume of concrete in the beam. ***Be sure to indicate where you chose your origin (0,0) to be in the figure!***

0.4 m

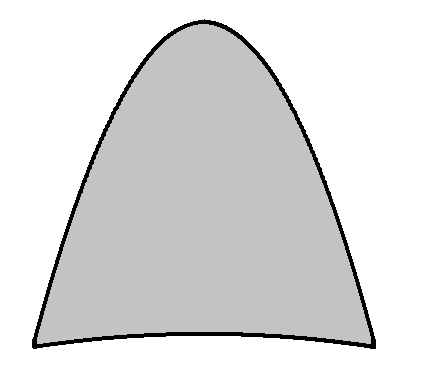


8 m

1.5 m

0.3 m

**Problem 3:** The diagram below is of an odd-shaped window. The top of the window is a ***parabola*** and the bottom of the window is a portion of a ***circle*** with a radius of 10ft. Find the area of the glass. ***Use the origin indicated in the diagram.***



9.8 ft.

0.2 ft.

2 ft.

5 ft.

(0,0) Center of circular arc