

SPECIFIC OBJECTIVES

Students will understand:

The need for weight calculation for fabrication and installation which include:

- Capabilities of lifting devices
- Sequence of component installation
- Determine end prep dimensions for glove fit parts

Students will be able to:

Calculate weights based on:

- Per foot weight of standard beams
- Volume of steel plates
- Convert linear inches to linear feet
- Convert cubic inches to cubic feet

PROBLEM SITUATION 1:

From a fabrication drawing, create a bill of materials including detail part weight.

- Determine cost of each part based on weight from Bill of Materials
- Determine cost of parts based on linear dimensions from Bill of Materials
- Determine total cost of finished part

Introduction

PROBLEM SITUATION 2

MAKING CONNECTIONS

Students become more aware of use of weight calculations

Section 6 of the welding math text addresses volume, weights, and area.

FURTHER APPLICATIONS

(1) Need for weight consideration with lifting devices and transport vehicles.

(2) Need for ordering material