

# Introduction:

## Port of Long Beach

In order to understand the math lessons that follow, you will need to become familiar with the Port of Long Beach, particularly with some of the special terminology used in goods movement and international trade. This section and the accompanying PowerPoint presentation (Port of Long Beach Basics.ppt) provide background information to facilitate student learning.

### **About the Port of Long Beach**

The Port of Long Beach is the second busiest seaport in the United States and a major gateway for U.S.-Asian trade. Every year about \$100 billion worth of cargo passes across the Port of Long Beach's docks. Imported cargo arrives at the Port bound for store shelves, factories and other destinations locally and across the United States; and exports leave, bound for foreign ports and international consumers.

The Port of Long Beach is a full-service seaport. Everything from electronics and machinery to food, cars and petroleum products are shipped through the Port. The Port generates roughly 30,000 jobs in Long Beach, or about 1 in 8 jobs.

### **Types of Cargo**

Cargo coming through the Port of Long Beach is divided into four categories:

1. Containerized cargo
2. Dry bulk cargo
3. Liquid bulk cargo
4. Break bulk cargo and roll-on, roll-off cargo

**Containerized cargo** is cargo that comes in containers. These containers hold just about anything...iPods, tennis shoes, furniture, you name it.

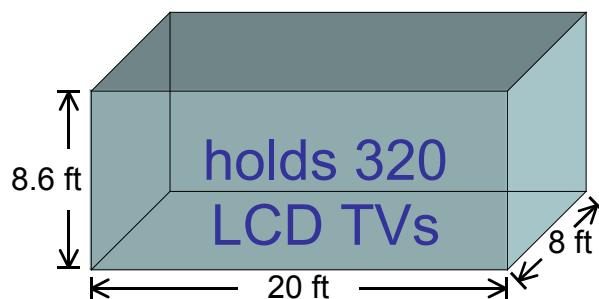
Containers come in two sizes. The smaller ones are twenty-foot containers.



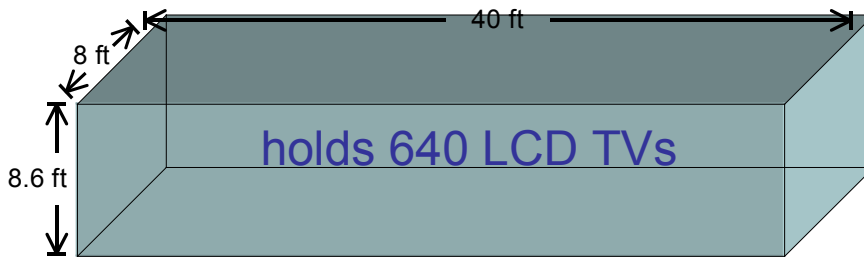
The larger containers are forty-foot containers. Most of the containers you see on the road are 40-foot containers.



A 20-foot container can hold 320 19-inch LCD televisions.



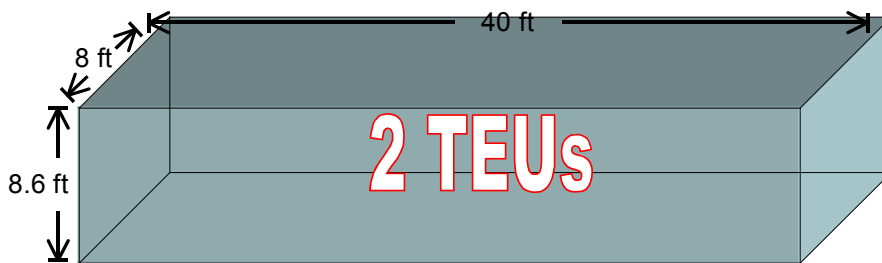
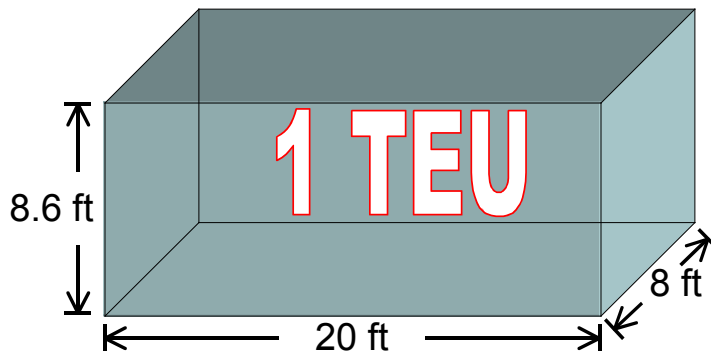
A 40-foot container holds 640 of these LCD televisions.



The number of containers a ship can hold is measured in **TEUs**, or a 20-foot-equivalent. One TEU is one 20-foot container. A forty-foot container is 2 TEUs. Large ships carry about 8,000 TEUs.

1 TEU = 1 Twenty Foot Equivalent Unit = 1 20-foot container

2 TEUs = 2 Twenty Foot Equivalent Units = 1 40-foot container



Tell your neighbor:

1. What does TEU stand for? Answer: Twenty-Foot Equivalent Unit
2. What size are the containers you normally see on the back of semi trucks? Answer: 2 TEUs. They are 40 feet long.

**Dry bulk cargo** is dry stuff that does not come in containers. It is measured by weight or volume. Some examples are salt, cement, gravel, sand and grain.

Tell your neighbor:

1. What is dry bulk? Answer: Dry stuff that does not come in containers.
2. Give an example. Answer: salt, cement, gravel, sand, etc.

**Liquid bulk cargo** is wet stuff that does not come in containers. It is measured by weight or volume. Some examples are oil, gasoline, and chemicals.

Tell your neighbor:

3. What is liquid bulk? Answer: Wet stuff that does not come in containers.
4. Give an example. Answer: oil, gasoline, chemicals.

**Break bulk cargo** is comprised of large or heavy items moved on pallets, bundles or rolls. Some examples are steel, lumber, paper on rolls, machinery and food products.

**Roll On-Roll Off cargo** is comprised of items that are driven on and off the ship. Examples are cars, trucks, buses and construction vehicles. Roll on-roll off cargo is often called ro-ro cargo, pronounced just as it looks – row, row.

Tell your neighbor:

1. What is break bulk? Answer: large or heavy items moved on pallets, bundles or rolls.
2. Give an example of ro-ro cargo. Answer: cars, trucks, buses and construction vehicles.

Create this table in your notes and fill it in to summarize the lesson:

Type of Cargo	Description	Example
Containerized	In containers	Shoes, computers, etc.
Dry bulk	Dry material	Salt, etc.
Liquid bulk	Liquid material	Oil, etc.
Break bulk, ro-ro	Large or rolling	Wood, etc.