How many people does it take to make an ordinary wooden pencil?

The International Pencil
Cedar trees are used because their grain is very straight.
Lumber jacks in Oregon and northern California cut down cedar trees.
The logs are loaded onto trucks ...
... and delivered to a mill in San Leandro California.
At the mill in San Leandro, the logs are cut into rectangular blocks called slats. Each slat is 7 inches (17.78 centimeters) long and 3 inches (7.62 centimeters) wide, and one-quarter inch (0.63 centimeters) thick -- half the thickness of a pencil.
The slats are shipped by rail to a factory in Wilkes-Barre Pennsylvania.
When they arrive at the factory, a machine cuts nine grooves into one side of each slat.
At the factory, resources from around the world are combined to make a pencil.
Trucks run on diesel fuel.
Where do we get the crude oil needed to make diesel gas?
Much of the oil imported into the U.S. comes from OPEC countries like Saudi Arabia.
... is loaded on a ship in a paper sack ...
Workers in Japan built the ship that carries the graphite to the U.S.
The “lead” used in pencils is a mixture of graphite, clay, and gums.
Graphite is mined in Sri Lanka.
... and is shipped to the United States.
The ship is registered in Liberia.
The ship is owned by a French-Dutch joint venture.
Candelilla wax from Mexico is added to make the pencil lead smooth and strong.
The graphite and candelilla wax are then mixed with clay from Mississippi to make the lead in the pencil.
A machine puts this mixture of graphite, clay and wax into the grooves of a slat.
Then two slats are glued together to make a “pencil sandwich”.
Nine pencils are carved out of each pencil sandwich.
Each pencil then receives several coats of lacquer.
Castor oil is one of the main ingredients of lacquer. Farmers in tropical Africa grow castor beans.
The black lettering on a pencil is a combination of carbon black and resins.
A plant in Borger, Texas, makes carbon black.
The piece of metal that holds the eraser is called the ferrule. It is made of brass, which is a combination of zinc and copper.

Two thirds of the world’s reserves of zinc are in the U.S., Canada, Australia, the Former Soviet Union, and Ireland.
Sources of copper include Bolivia, Chile, and Zambia
The plug, or eraser, is a combination of many different ingredients including pumice from Italy.
The substance that erases is the result of a chemical reaction between sulfur chloride and the oil from a seed grown in Indonesia.
People from around the world are involved in making a pencil.
Written Response

Directions – Write a short paragraph (3-5 sentences) to answer each question.

1. Why do countries specialize in the creation of certain products?
2. How does this specialization encourage trade?
How many people participate in the production of a pencil? Far more than anyone would suspect. And only a few of those involved even know that a pencil is the end result of their labor. Through specialization, people from around the world contribute to the end product. Without even knowing it, they interact with each other indirectly. How much does this pencil cost? Less than a quarter -- far less than if any single person tried to produce it with no one else’s help. The international pencil is a bargain.