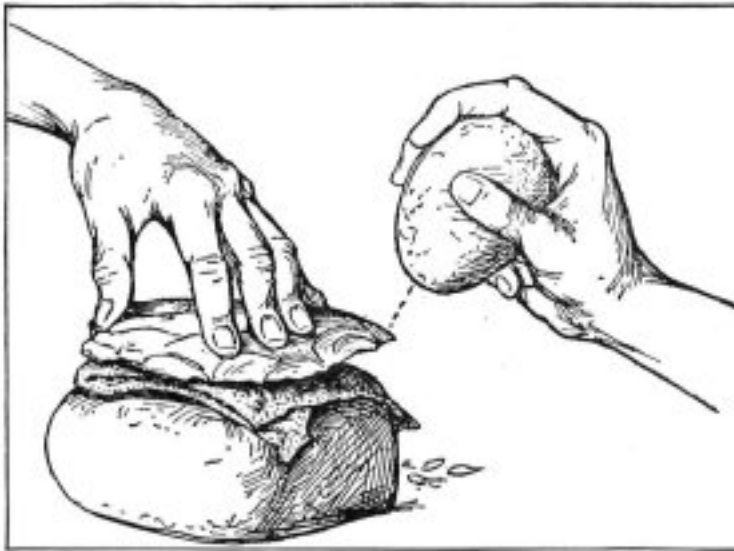


Social Studies Solvers

Ancient Economics!



**Hunter-Gatherer to International
Trading Societies**

Real-Life Word Problems
Volume 1



About the Materials:

Ancient Economics: Hunter-Gatherer Society to International Trading Society introduces the student to the concept of different economic systems that developed as humans progressed from hunter-gatherers to international trading societies. This is a sampling of the “economic practices” of ancient man from paleo-hunters to the Minoan traders.

The four page reading and comprehension sheet provides an overview of the development of four different types of societies: hunter-gatherer, farming, trading, and international trading.

The problem-solving sheets that follow are based on research and the actual practices that these societies followed. As far as is possible, products mentioned in the problem-solving sheets are authentic to the cultures. (For example, the ancient Mediterranean cultures actually traded snails as a delicacy to eat...hence the containers of escargot in the Minoan Mission cargo! And war helmets during this period were lined with natural sponges to cushion the heads of the soldiers!)

When I used these in my classroom (4/5th grade), I often used one sheet a week, assigning the students one problem a day, although the pages can also be used as single assignment problem-solving sheets.

Image Credit: All Images are from Art Today

Table of Contents

Reading and Comprehension Sheet

A Transition to Trading1-4

Hunter-Gatherer Society

Ice-Age Man Had Problems, Too5-6

Farming Society: Maya

Maya Maize7-8

Maya Market9-10

Trading Society: Egypt

Queen Hatshepsut's Swap Shop11-12

Down at Pharaoh's Tomb13-14

International Trading Society: Crete

Minoan Mission15-16

Answer Keys17-21

Name: _____

A Transition to Trading

Economics have always influenced man. The earliest cultures, such as that of the Ice Age, were hunter-gather societies. A hunter-gatherer society is a group of people that hunt animals and gather wild fruits and vegetables. They do not raise animals or crops like farmers do today. Ice Age people hunted game (wild animals) and gathered wild fruits and vegetables in order to survive. This resulted in a culture that moved around a great deal, as people had to follow their food source - the animals that they hunted. When they had hunted all of the animals in one area, they had to move to a new one so that they could survive. Thus, Ice Age people rarely settled in one place for a long period of time. In fact, it was by chasing the large game during the Ice Age that they migrated to the Yucatan Peninsula in Central America.

1. What is a hunter-gatherer society?

2. Why did Ice Age people move around a great deal?

3. Why did Ice Age people migrate to the Yucatan Peninsula in Central America?

Early humans hunted all of the large game in Central America over a period of time, until there were no large animals left. After that, they had to hunt smaller animals in order to survive. When the smaller animals were gone, people had to *adapt*, or change to a different way of living, or they would die. In about 3,000 B.C., people learned to plant corn and other crops. At this time, people switched gradually from a hunter-gatherer society to a farming society. No longer did early people move from one place to another in search of food. Instead, they grew and harvested their own food. With farming came the rise of towns and villages, and eventually cities. People began to become more and more interdependent. In this context, *interdependent* meant that they depended on each other for the things that they needed to live. People began to have different *professions*, or jobs. People were farmers, pottery-makers, tool-makers, artists, soldiers, cloth-weavers, jewelry-makers and shop-keepers. In order to get all the things that they needed, people had to trade things with others. This was known as *bartering*.

4. How did people change their way of living after they had hunted all of the animals and there were none left?

5. In what ways is a farming society different from a hunter-gatherer society?

6. What does *interdependent* mean?

As people became more sophisticated, they wanted and needed more and more things, some of which were not available in the cities, or even in the countries, in which they lived. For example, in ancient Egypt they produced a great deal of grain, but had very little wood, as they lived in a desert environment. Thus, they had to figure out a way to get the wood that they wanted to use to build or carve. Queen Hatshepsut of Egypt hit upon a good solution. She decided to trade Egypt's abundant farming products with other countries in exchange for things that her county needed.

7. How did Queen Hatshepsut solve the problem of getting her people things that they needed but they couldn't get in Egypt?

The ancient Minoans took this idea even farther. "There has to be money in this somewhere", they probably thought. They were the best shipbuilders in the Mediterranean area. They sailed the all around the Mediterranean Sea in their ships, and traded things with many different cultures. The ancient Minoans were business people, and their *economy* (money-making system) was based on trading. They became the first international traders in the world. *International* means between nations or countries. The ancient Minoans also served as middlemen: they would buy goods from one country and sell or trade those goods (for a profit) to another country.

8. Explain how the ancient Minoans made money:

Today almost all of the nations in the world are international trading societies. Many of the things that we use every day are made in other countries. Other countries send their products to our country, and we buy them. We send things that are made in our country to many other countries in the world.

9. Explain in your own words what an international trading society is:

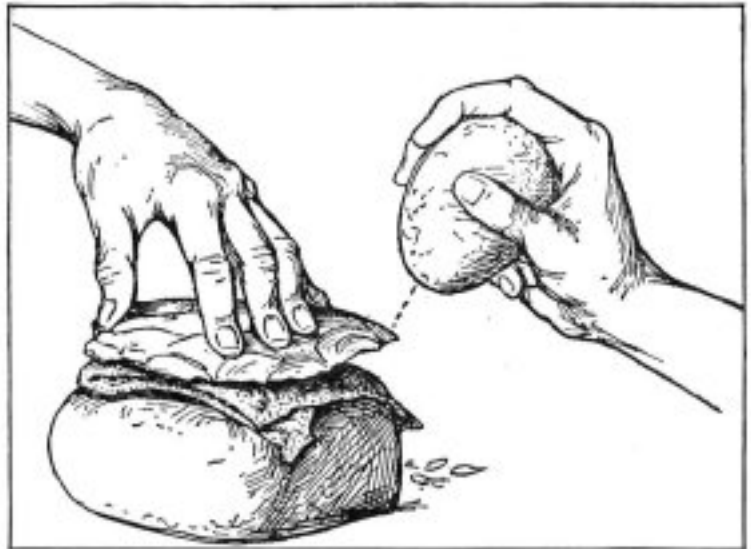
Name: _____

Hunter Gatherer Society: Ice-Age Man Had Problems, Too!

Directions: Solve the problems. Show all of your work. Remember to label your answers.

Did you know?

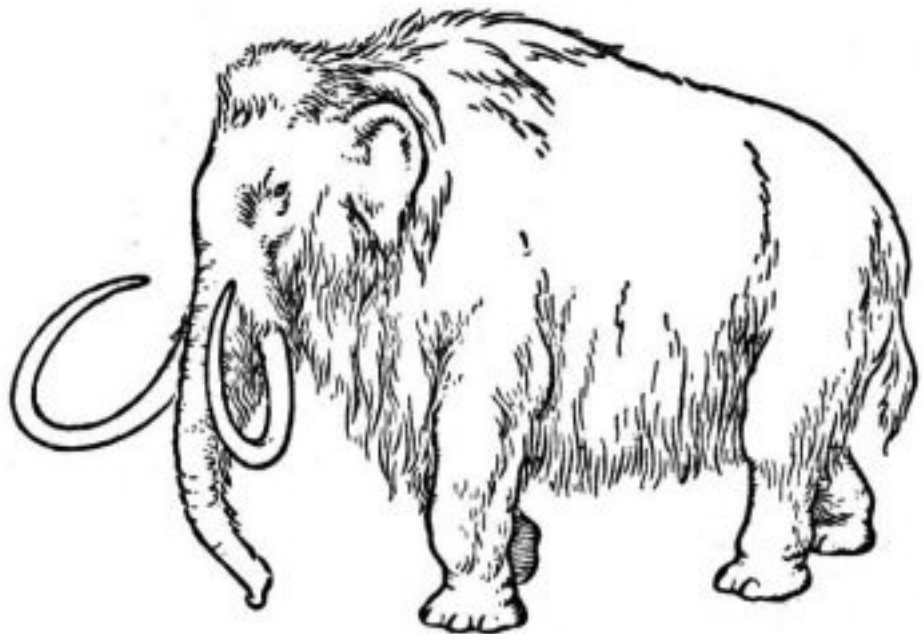
Ice Age people had to make everything that they had out of things that they found in their environment. One of the things that they had to make was spears. The heads of the spears that they used to hunt were made of a type of rock called flint. A *core* of flint was a large chunk of flint that spear makers, called flint-knappers, would make into spearheads and other tools they needed, such as scrapers.



1. A tool-maker was making spearheads out of flint. For every one he made correctly, he wasted three pieces of flint. He made five spearheads. How many pieces of flint did he waste?
2. Clovis the flint-knapper had three cores of flint. His son, Folsom, had two cores of flint. Each core would make twenty spearheads and fifteen scrapers. How many of each tool could they make altogether?
3. A group of Ice Age people moved into an area where there was a herd of 76 mammoths. Saber-toothed tigers ate 19 mammoths, and 37 were hunted and eaten by the people. How many mammoths were left in the herd after this?

4. The same group of Ice Age people used saber-toothed tiger skins to make their clothing. One skin could make seven men's loincloths or three women's dresses. If there were fourteen men and twelve women in the group, how many saber-toothed tiger skins did they need to make clothing?

5. It took three pieces of limonite (an orange-colored rock) to make enough paint to create a picture of a mammoth. If an Ice Age artist painted six mammoth pictures, how many pieces of limonite did he need to make enough paint?



Name: _____

Farming Society: Mayan Maize

Did You Know?

The ancient Maya were a people who lived in Central America. Like all rain forest people, they used the slash-and-burn method of farming. Maize, or corn, was an important crop.

Note: All of the “farmer” problems below are about the same farmer's corn field.



Directions: Find the answer to each question. Show all of your work, and remember to label your answers.

1. A Mayan farmer burned an acre of jungle to make two fields in which to plant his corn. There were seventy-five canopy trees on the acre. There were thirty-seven trees in the first field. How many were in the second field?

2. The farmer and his two helpers worked hard to prepare the fields for planting. Each helper spent thirty-six hours clearing and plowing the land. The farmer offered each of them two baskets of corn for each hour they worked. At the end of the job, how many baskets of corn did the farmer owe his helpers altogether?

3. There are twelve inches in a foot. If the Mayan farmer was 5 feet tall, and his wife was 51 inches tall, how many inches taller was the farmer than his wife?

4. Insects began to eat the corn plants. Out of every two healthy plants, the insects ate one. How many plants were healthy if sixty of them were eaten by insects?

5. The farmer harvested 613 baskets of corn. 276 were from the second field. How many were from the first field?

6. How many baskets of corn did the farmer have left for himself and his family after paying his two helpers the number of baskets of corn he promised them as payment for helping him clear the field in problem 2?

7. The farmer needed 257 baskets of corn as food for himself and his family. How many baskets did he have left to trade in the Maya Market for other things that his family needed?

Name: _____

Farming Society: Mayan Market

Did You Know?

The ancient Maya had a very interesting form of money! They used cocoa beans for money. (In the Mayan culture, money did grow on trees, or at least on bushes! Very rich people drank a beverage like hot



chocolate. When they drank it, they were "drinking money!") The Maya had marketplaces where they bought and sold things like jewelry, pottery, feathers, beads, and food. Calculate the answer to each problem. Show all of your work, and remember to label your answers!

1. Jewelry Booth:

Jade Jewelry	Price
Earrings (Pair)	30 cocoa beans
Nose Ring	15 cocoa beans
Lip Plug	10 cocoa beans
Bracelet	40 cocoa beans

- a. A Maya woman bought two bracelets, three pairs of earrings and a lip plug. If she had two hundred cocoa beans to start with, how many cocoa beans did she have left after buying these items?

- b. The jeweler's wife needed corn for making tortillas. She asked a farmer to trade her baskets of corn for jade jewelry. She traded two pairs of earrings for eight baskets of corn. How many baskets of corn did the farmer pay for one pair of earrings?

2. Pottery Maker's Booth:

Pottery	Price
small pot	12 cocoa beans
medium pot	19 cocoa beans
large pot	25 cocoa beans

A rich man traded the potter a jaguar skin for two large pots, three medium pots and four small pots. How many cocoa beans was the jaguar skin worth?

3. A Mayan farmer stopped at the spear-maker's booth. He wanted to buy an *atlatl* (spear thrower) and four spears to hunt with. The spear-maker agreed to trade him each spear for four baskets of corn. The *atlatl* cost ten baskets of corn. How many baskets of corn did the farmer need to buy four spears and an *atlatl*?

Name: _____

Trading Society: Queen Hatshepsut's Swap Shop

Did you know?

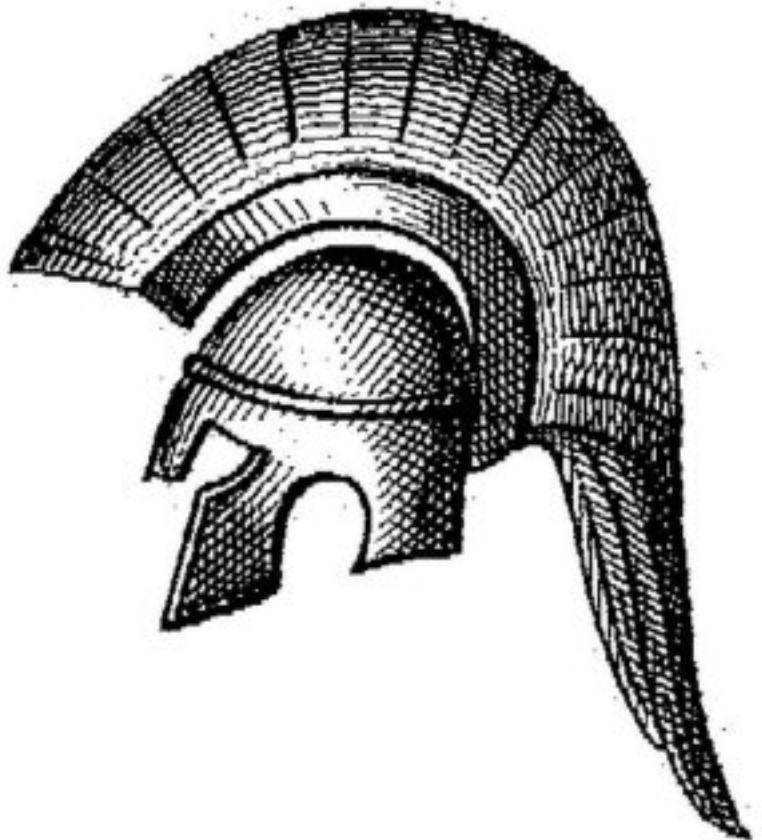
Queen Hatshepsut was a female pharaoh. Before Queen Hatshepsut, Pharaohs had always been men. Queen Hatshepsut wore the traditional clothes that all pharaohs wore, including a false beard. People saw the beard and decided she **MUST** be the pharaoh! Queen Hatshepsut was a strong leader, and many trading expeditions took place under her *reign*, or leadership.



1. Queen Hatshepsut ordered the royal scribe to record the following facts: 2,454 measures of wheat were traded to the Nubians. 3,214 measures were sent to Crete. 4,692 were traded to the Phoenicians. How many measures of wheat were traded in all to other countries?
2. Queen Hatshepsut bought a herd of camels. There were sixty legs in the herd. She traded thirty ingots of silver for the herd. How many ingots of silver did each camel cost? (Hint: figure out how many camels were in the herd first!)
3. If the Nubians traded one log of wood to the Queen for three measures of grain, how many measures of grain would they get for 25 logs?

4. The Phoenicians wanted papyrus from Egypt. The Queen offered to trade eight papyrus scrolls for each container of purple dye they could provide. The Phoenicians had sixteen containers of purple dye to trade. How many papyrus scrolls would they receive?

5. Queen Hatshepsut wanted sponges to line her soldiers' helmets. She offered to trade two ingots of silver for each dozen sponges. The Minoans had seventy-two sponges. How many ingots of silver did they receive?



Name: _____



Trading Society: **Down at Pharaoh's Tomb**

Did You Know?

Pharaohs' tombs were very important to them. A pharaoh would often spend much of his adult life directing the work on his tomb. Many artists were hired to work on the tombs. Among these were stonecutters, scribes, and architects!

1. A stonecutter, a scribe, and an architect were working on different parts of the Pharaoh's tomb. They lived in three different houses in a nearby town and owned three different pets: a monkey, a cat, and a dog. The stonecutter lived closest to the tomb. The scribe owned the monkey. The man who lived farthest from the tomb owned the cat. Draw a picture showing the position of the three houses from the tomb. Label each house with the job of the man who owned it and with the pet that lived there.

2. The architect's job was to create the *blueprint*, or design, of the tomb. He spent six hours a day every day for three weeks creating the blueprint. After Pharaoh saw it, he asked the architect to change several things. This time the architect spent eight hours a day for two weeks making a new blueprint. How many hours did he spend creating the two blueprints?

3. The stonecutter was commissioned to carve a statue of the Pharaoh. He spent six hours a day for six days designing the model. After the pharaoh approved it, the stonecutter began to work on the life-sized statue. He worked nine hours a day, six days a week. He spent twenty weeks carving the statue. How long did he work on the statue, including the time he spent designing the model?

4. The scribe had to make his own sheets of papyrus. Each sheet had to be made separately, and took twenty minutes to make. After the sheets were made, they could be dried at the same time. The sheets took sixteen hours to dry. When they were dry, each sheet had to be separately *burnished* (smoothed with a stone.) This took fifteen minutes per sheet. How much time did he spend in all making eight sheets of papyrus?

5. It was the scribe's job to draw and paint murals on the walls of Pharaoh's tomb. He had five helpers to work on the mural he was commissioned to paint. He and his five helpers worked for different amounts of time. The scribe worked on the mural for a total of two hundred hours. Helper 1 worked for half of that amount of time. Helper 2 worked for $\frac{3}{4}$ of the amount of time that Helper 1 did. Helper 3 worked twelve hours more than Helper 2 did. Helper 4 worked for one hundred and twenty hours. Helper 5 worked for $\frac{1}{4}$ of the time Helper 4 did. How many hours did each of the six men work?

The Scribe: _____

Helper 1: _____

Helper 2: _____

Helper 3: _____

Helper 4: _____

Helper 5: _____



Bonus: How many hours did the scribe and his five helpers spend working on the mural in all?

Name: _____

Minoan Mission:

Your Mission: You are a Minoan trader. Your ship’s cargo is listed on the inventory sheet. The column labeled “Beginning Cargo” tells you how much of each product you have when you start on your trade route. At each stop, you will get new products and trade away some of your original cargo. Any new product needs to be listed in the “Product Name” column. As you leave each stop, you need to list how much of each product you have left under the column titles with the stop’s name.



VOCABULARY NOTE: an ingot is a chunk of metal; an amphora is a two-handled jar with a narrow neck; an escargot is an edible snail; Senet was an ancient Egyptian game somewhat like backgammon.

1. **Stop # 1: Cyprus:** You sail into the harbor at Cyprus. A rich merchant there knows that the Cyprian army needs sponges to line their war helmets. He offers you 60 copper ingots for 240 sponges. You accept and load the ingots on your ship.
2. **Stop # 2: Syria:** You sail on towards Syria. When you arrive there, a merchant offers you 100 ingots of tin and 235 pieces of lapis lazuli for 125 amphoras of olive oil, 50 containers of escargot, and 67 bronze swords. You agree and make the trade.
3. **Stop #3: Egypt:** You arrive in Egypt. The pharaoh send his *visor*, or second-in-command, to bargain with you.

What the Pharaoh Wants from Your Cargo:	What You are Offered by the Pharaoh’s Visor:
all of your remaining olive oil	300 precious stones
all of your woolen cloth	100 ivory tusks
82 containers of escargot	75 carved cosmetic cases
50 gold arm bands	100 pots of kohl (eyeliner)
all of your wood	60 Senet games
all of your grain	100 cubits of linen
225 amphoras of wine	80 ostrich feathers

You accept and sail back to Crete. Adjust your inventory on the way back to show how much of each product you now have!

Name: _____ Minoan Mission: Inventory Sheet:

Product Name	Beginning Cargo	Cyprus	Syria	Egypt
1. olive oil	250 amphoras			
2. escargot	225 containers			
3. sponges	360			
4. wood	750 logs			
5. gold arm bands	60			
6. bronze swords	75			
7. grain	325 baskets			
8. woolen cloth	100 cubits			
9. clay lamps	100			
10. wine	250 amphoras			
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

Use the information in your inventory chart to evaluate your trip!

1. Which products that you started with were your best sellers?
2. Which products would you NOT try to trade with these countries on your next trip?
3. Which products would you still trade, but take less of with you on your next trip?



Answer Keys:

Reading Comprehension Sheets: A Transition to Trading

1. What is a hunter-gatherer society?

A hunter-gatherer society is one which hunts animals and gathers wild fruits and vegetables.

2. Why did Ice Age people move around a great deal?

Ice Age people moved around a great deal because they had to follow their food sources-the animals that they hunted.

3. Why did Ice Age people migrate to the Yucatan Peninsula in Central America?

They migrated to Central America while following the big game.

4. How did people change their way of living after they had hunted all of the animals and there were none left?

They began to raise corn and other crops and raise their own animals. They became farmers and settled in one place.

5. In what ways is a farming society different from a hunter-gatherer society?

A farming society is a society in which people live in one place and raise their own crops and animals. Over time, people begin to have different jobs. In a hunter-gatherer society, people gather wild fruits and vegetables and hunt animals. They have to move around to follow the animals that they hunt.

6. What does *interdependent* mean?

Interdependent means depending on each other for things that we need.

7. How did Queen Hatshepsut solve the problem of getting her people things that they needed but they couldn't get in Egypt?

She decided to trade things with other countries.

8. Explain how the ancient Minoans made money:

They traded things with other countries around the Mediterranean area, using their ships to transport cargo. They were also used as middlemen: that is to say that they would deliver goods from one country to another and collect a good bit of money or things from other cultures for doing so.

9. Explain in your own words what an international trading society is:

Answers will vary.

Problem Solving Sheet #1: Ice-Age Man Had Problems, Too!

- 1. $3 \times 5 = 15$ pieces of flint wasted.**
- 2. spearheads: Clovis: $3 \times 20 = 60$; Folsom: $2 \times 20 = 40$
 $60 + 40 = 100$ spearheads
scrapers: Clovis: $3 \times 15 = 45$; Folsom: $2 \times 15 = 30$
 $45 + 30 = 75$ scrapers**
- 3. $19 + 37 = 56$ $76 - 56 = 20$ mammoths left in the herd.**
- 4. men's: 14 divided by $7 = 2$; women's: 12 divided by $3 = 4$
 $4 + 2 = 6$ saber-toothed tiger skins were needed**
- 5. $3 \times 6 = 18$ pieces of limonite.**

Problem-Solving Sheet #2: Maya Maize

- 1. $75 - 37 = 38$ trees in the second field**
- 2. $36 \times 2 = 72$; $72 \times 2 = 144$ baskets of corn**
- 3. $5 \times 12 = 60$; $60 - 51 = 9$ inches taller**
- 4. $60 \times 2 = 120$ healthy plants**
- 5. $613 - 276 = 337$ baskets from the first field**
- 6. $613 - 144 = 469$ baskets of corn left**
- 7. $469 - 257 = 212$ left to trade**

Problem-Solving Sheet #3: Maya Market

- $2 \times 40 = 80$; $3 \times 30 = 90$; $80 + 90 + 10 = 180$; $200 - 180 = 20$ cocoa beans left.
 - 8 divided by 2 = 4 baskets of corn.
- $2 \times 25 = 50$; $3 \times 19 = 57$; $4 \times 12 = 48$; $50 + 57 + 48 = 155$ cocoa beans.
- $4 \times 4 = 16$; $16 + 10 = 26$ baskets of corn

Problem-Solving Sheet # 5: Queen Hatshepsut's Swap Shop:

- $2,454 + 3,214 + 4,692 = 10,360$ measures of wheat.
- 60 divided by 4 = 15; 30 divided by 15 = 2 ingots of silver each.
- $25 \times 3 = 75$ measures of wheat.
- $16 \times 8 = 128$ papyrus scrolls.
- 72 divided by 12 = 6; $6 \times 2 = 12$ ingots of silver

Problem-Solving Sheet # 6:Down at Pharaoh's Tomb:

- 1. Closest to tomb: stone-cutter; dog
Middle house: scribe; monkey
Farthest from tomb: architect; cat**
- 2. $6 \times 21 = 126$; $8 \times 14 = 112$; $126 + 112 = 238$ hours**
- 3. $6 \times 6 = 36$; $6 \times 9 = 54$; $54 \times 20 = 1,080$; $1,080 + 36 = 1,116$**
- 4. $20 \times 8 = 160$ minutes; $15 \times 8 = 120$; 280 divided by $60 = 4$ hours, 20 minutes + 16 hours = 20 hours and 20 minutes.**
- 5. Scribe: 200 hours; Helper #1: 100 hours; Helper #2: 75 hours; Helper #3: 87 hours; Helper #4: 120 hours; Helper #5: 30 hours**
- 6. Bonus: 612 hours altogether**

Name: _____

Minoan Mission: Inventory Sheet:

Product Name	Beginning Cargo	Cyprus	Syria	Egypt
1. olive oil	250 amphoras		125	0
2. escargot	225 containers		175	93
3. sponges	360	120		120
4. wood	750 logs			0
5. gold arm bands	60			10
6. bronze swords	75		8	8
7. grain	325 baskets			0
8. woolen cloth	100 cubits			0
9. clay lamps	100			100
10. wine	250 amphoras			25
11. copper ingots		60		60
12. tin ingots			100	100
13. lapis lazuli			235	235
14. precious stones				300
15. ivory tusks				100
16. cosmetic cases				75
17. kohl				100 pots
18. senet games				60
19. linen				100 cubits
20. ostrich feathers				80

Use the information in your inventory chart to evaluate your trip!

4. Which products that you started with were your best sellers?
olive oil, wood, grain, woolen cloth
5. Which products would you NOT try to trade with these countries on your next trip?
clay lamps
6. Which products would you still trade, but take less of with you on your next trip?
escargot, sponges, arm bands, swords, wine