***Choc Chip Cookie Mining***

**Your Task**

Today you are going to do some open cut and underground mining. You are going to mine the very valuable brown gold (a.k.a. chocolate) out of a choc chip cookie. Each gram of brown gold is worth $100,000.

You will work through each stage of the mining process with your cookie. You need to manage your finances and environment carefully in order to make a profit.

**Exploration:** Your mining company has secured a loan of **$250,000** from the bank to buy your mining lease.

Count the number of brown gold deposits (choc chips) you can see on the top of your cookie.

Visible choc chips: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Extraction:** You need to purchase equipment to mine your brown gold. You may purchase up to 5 toothpicks, up to 3 small paperclips, and 1 large paperclip. If the tools break they are no longer useable.

You cannot use your fingers to hold the cookie. The only things that can touch the cookie are your mining tools and the paper it is sitting on.

**Processing:** Minerals undergo some form of chemical processing before being transported to market for sale. You need to clean up your chocolate as much as possible.

**Rehabilitation:** After the minerals in a mine have run out, the mine site needs to be returned to its natural state. You need to rebuild you cookie so that it looks as close to the original cookie as possible.

***Choc Chip Cookie Mining Cost Sheet***

1. Cost of mining lease = $250,000
2. Equipment used

Toothpick \_\_\_\_ x $5,000 = $ \_\_\_\_\_\_\_\_\_

Small paper clip \_\_\_\_ x $12,500 = $ \_\_\_\_\_\_\_\_\_

Large paper clip \_\_\_\_ x $25,000 = $ \_\_\_\_\_\_\_\_\_

Total Equipment Cost = $ \_\_\_\_\_\_\_\_\_

1. Mining costs \_\_\_\_ minutes x $5,000 = $ \_\_\_\_\_\_\_\_\_
2. Value of chocolate \_\_\_\_ grams x $100,000 = $ \_\_\_\_\_\_\_\_\_
3. Reclamation fine = $ \_\_\_\_\_\_\_\_\_

**How much did we make?**

Value of chocolate $ \_\_\_\_\_\_\_\_\_\_\_\_

Total costs = mining lease + equipment + mining costs + fines

= $250,000 + $ \_\_\_\_\_\_\_\_\_ + $ \_\_\_\_\_\_\_\_\_\_ + $ \_\_\_\_\_\_\_\_

= $ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Profit = Value of chocolate - Total costs

= $ \_\_\_\_\_\_\_\_\_\_\_\_ - $ \_\_\_\_\_\_\_\_\_\_\_\_

= $ \_\_\_\_\_\_\_\_\_\_\_\_