Ore Composition Table of Asteroids

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Asteroid vs Ore | iron | nickel | cobalt | water | platinum | dirt |
| M-type | 83% | 12% | 0.50% | 0 | 1% | 3.50% |
| S-Type | 15% | 1.10% | 3.10% | 0 | 0 | 80.80% |
| C-type | 10.70% | 1.40% | 0 | 5.70% | 0 | 82.20% |

You chose the M-Type asteroid which contains ore in the following percents, and all asteroids have a volume of 96 oz, so each asteroid contains a different proportionate amount of ore in ounces.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ore | Modeled By: | Percent | %✕96 oz = | Quantity oz |
| Iron | Rubber bands | 83 | 96 | 80 |
| Nickel | Macaroni | 12 | 96 | 11 |
| Cobalt | Paper clips | 0.5 | 96 | 1 |
| Water | Foam | 0 | 96 | 0 |
| Platinum | BBs | 1 | 96 | 1 |
| Dirt | Shredded paper | 3.5 | 96 | 3 |
| Asteroid | Container | 100 | 96 | 96 |

You chose which harvester: Medium. You chose prospecting method: 2 scoops.

|  |  |  |
| --- | --- | --- |
| Harvester Size | Efficiency of Prospecting Increases Quantity Mined | Harvester Volume = \_ oz ✕ \_ scoops |
| Large – 8 oz | Map gives 3 scoops | - |
| Medium – 4 oz | Spectroscopy gives 2 scoops | - |
| Small – 2 oz | Probe gives 1 scoop | - |
| Your Size: | Your Method : | Your Volume: |
| 4 oz | Spectroscopy gives 2 scoops | 4 oz ✕ 2 scoops = 8 oz |

So what then happened on your mining mission to the M-Type asteroid? It seems that all your scoops were completed successfully because you mined all 8 oz, and here is your gross return (costs not subtracted):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ore | Modeled By: | Value $ per ounce | Oz Mined | Value $ of Ore |
| Iron | Rubber bands | 20,000 | 5 | 100,000 |
| Nickel | Macaroni | 43,550 | 2 | 87,100 |
| Cobalt | Paper clips | 102,100 | 1 | 102,100 |
| Water | Foam | 19,000,000 | 0 |  |
| Platinum | BBs | 149,500,000 | 0 |  |
| Dirt | Shredded paper | None | 0 |  |
| Asteroid | Container |  | 8 | 289,200 |

Your return was $289,000 dollars. That’s a lot of money. Is that what you expected? What could you have made?

Well, your average M-Type asteroid theoretically has this much value, so what is your return?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ore | Modeled By: | Value $ per ounce | Oz Available | Value $ of Ore |
| Iron | Rubber bands | 20,000 | 80 | 1,600,000 |
| Nickel | Macaroni | 43,550 | 11 | 512,050 |
| Cobalt | Paper clips | 102,100 | 1 | 102,100 |
| Water | Foam | 19,000,000 | 0 | 0 |
| Platinum | BBs | 149,500,000 | 1 | 149,500,000 |
| Dirt | Shredded paper | None | 3 | None |
| Asteroid | Container |  | 96 | 151,714,150 |

|  |  |
| --- | --- |
| % Return = amount mined / amount available \* 100 | Your % Return = $289,200/$151,714,150 = 0.2% |

So did you make money? How do you know? You just subtract your expenses (from other pages) from your return. Is this a good return? How much were your expenses? Follow your budget? Done on time? Are your investors satisfied? Did you risk enough? Too much? Do you have any money left? How could you maximize your return?