## ASSIGNMENT: Owning a Small Business

$\qquad$
Date: $\qquad$

1. Based on demographics, which city do you think would be a better location to start a Canadian Ninja Warrior gym for adults between the ages of 18 and 64? Why?

## POPULATION BY AGE

| Age | Prince George, BC | Kamloops, BC |
| :--- | :--- | :--- |
| $0-17$ | $15 \%$ | $16 \%$ |
| $18-64$ | $67 \%$ | $66 \%$ |
| $65-79$ | $14 \%$ | $13 \%$ |
| $80+$ | $4 \%$ | $5 \%$ |
| Total Population | 74800 | 81300 |

2. Yannic is planning to run mobile phone app classes for seniors at the local seniors center. The population of the town is 74800 , and approximately $18 \%$ of the town is over the age of 65 .
a) How many potential students are there for Yannic's class?
b) If only $2.5 \%$ of the seniors are interested in mobile phone app classes, how many students can Yannic expect?
c) What are some factors that could affect Yannic's business success?
d) What are some ways Yannic could appeal to more people for his classes?
3. Rachel is starting a small business making jams and jellies, which she will sell at local markets. Categorize the follow expenses as start-up (S) or operating (O) costs.

| Expense | Start-up or Operating? |
| :--- | :--- |
| Business licence |  |
| Cash box \& card reader |  |
| Website/software monthly fees |  |
| Signs for booth |  |
| Jars |  |
| Fruit and other ingredients |  |
| Booth cost (per market date) |  |

4. Jeanie wants to open a dog daycare in Prince George. She has researched the market and decided that the business is feasible. List at least 5 items that Jeanie needs to consider as start-up costs.
5. Mark is starting a home-based housecleaning business. He has $\$ 2000$ saved up, and estimates his start-up costs as follows.

| Item | Cost |
| :--- | ---: |
| Vacuum | $\$ 850.00$ |
| Brooms and mops | $\$ 175.00$ |
| Cleaning solution | $\$ 100.00$ |
| Buckets and other supplies | $\$ 75.00$ |
| Business licence | $\$ 125.00$ |
| Printing signs for his business | $\$ 50.00$ |

a) Does Mark have enough money saved to start his business? What is the difference between his cash on hand and his start-up costs?
b) Suggest two additional items that Mark should consider as start-up expenses for his business.
6. Alex plans on starting a trash removal business. She has a three-quarter ton truck that she plans to use, but estimates that she will have the following start-up costs.

| Item | Cost |
| :--- | ---: |
| Tools | $\$ 300.00$ |
| Business licence | $\$ 175.00$ |
| Website development cost | $\$ 150.00$ |

a) Alex does not have any money saved up, so she needs to take out a loan from the bank. How much money will she have to borrow?
b) The loan has an interest rate of $5.05 \%$ per annum, compounded monthly, for a 1 -year term. How much will Alex have to repay?
7. Edwin runs a hot dog stand at the beach during the summer. In one month he had the following revenue and expenses.
a) Identify each item as either and expense or revenue, and fixed or variable.

| Item | Cost | Expense or Revenue? | Fixed or Variable? |
| :--- | ---: | ---: | ---: |
| Loan payment for purchase of stand | $\$ 175.00$ |  |  |
| Monthly business licence | $\$ 45.00$ |  |  |
| Food supplies | $\$ 1700.00$ |  |  |
| Wages for employee | $\$ 525.00$ |  |  |
| Insurance | $\$ 175.00$ |  |  |
| Hot dog sales | $\$ 3500.00$ |  |  |
| Tips | $\$ 92.00$ |  |  |

b) Calculate his total expenses and revenue.

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8. Serge runs a delivery service. He has three trucks and drivers working for him. He charges a flat rate of $\$ 75.00$ per delivery. His expenses for one month are shown.
a) During the month, one truck made 75 deliveries, the second made 45 deliveries, and the third made 92 deliveries. Did the company have a profit or a loss?

| Expenses |  |
| :--- | ---: |
| Office supplies | $\$ 75.00$ |
| Fuel costs | $\$ 965.00$ |
| Cell phones | $\$ 225.00$ |
| Insurance on trucks | $\$ 685.00$ |
| Salaries for drivers | $\$ 8225.00$ |
| Advertising | $\$ 50.00$ |
| Truck maintenance | $\$ 600.00$ |
| Salary for Serge | $\$ 5000.00$ |

b) How many deliveries does the company have to make to break even?
9. Lenny and his friends have a band. They have created a logo for their band and have had it printed on T-shirts to sell at their gigs. Each T-shirt cost them $\$ 12.49$ to make, and each of the 5 members of the band and 6 crew got a free T-shirt. If they had 500 shirts printed, how much would they have to sell each shirt for, after giving away the free shirts, if they wanted to earn a profit of $\$ 2000.00$ on the sale of the shirts.
10. Marcel is an electrician. He charges $\$ 45.00$ per house call, plus $\$ 26.50 /$ hour. He has found that clients do not like the $\$ 45.00$ flat fee, so he wants to incorporate the fee into his hourly rate. He knows that house calls take an average of 3 hours.
a) Using his current fee, how much does Marcel charge for the average 3-hour house call?
b) How much would he have to charge per hour if he wanted to eliminate the $\$ 45.00$ flat fee but still earn the same amount per 3-hour house call?
c) After changing his rate, Marcel found he was not making as much of a profit as with his previous fee. Suggest one possible reason for his lower profit.

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