

This American Life Exercise

Most teens are not aware of how much it costs to have a job, a place to live, buy groceries, and maintain a car. So, this is a fun exercise in which to learn a little more about how to be an adult.

Frank Campbell is 25 years old and has just accepted a job offer as an Associate Chemist working for ADARx Pharmaceuticals in San Diego. He finished college two years ago with a BA in Chemistry and has no student loans because his parents generously paid his way through. He has been working at another company in Vermont and has saved a bit of money to move out to California. He just landed the job listed below for \$75,000/year and is moving from Middlebury, VT. He needs to find a place to live and a car to commute to work. He has just arrived with a few suitcases and no furniture. He estimates that he needs to spend up to \$3000 his first month buying furniture and household items. Review his current monthly budget to see how much he is anticipating other items to cost him. Frank has \$15,000 saved up in his savings account and \$5,000 in his checking account. Help him figure this out.



MORE ABOUT FRANK'S JOB

Company Overview

ADARx Pharmaceuticals is a newly launched next-wave genetic medicine company focusing on base editing of mRNA transcripts. We discover and develop innovative therapeutics that can utilize a family of endogenous enzymes called adenosine deaminase acting on RNA (ADAR) to precisely target and correct single point mutations on a mRNA, thus the production of desired and functional protein is restored. Our vision is to provide effective and safe therapeutics to patients who suffer from currently undruggable diseases.

We are well-financed with backup from a group of renowned VC funds, and our brand-new laboratory is located in San Diego, California.

Associate Chemist, Oligonucleotide Chemistry

Job Description:

We are looking for candidates as Associate Chemist, Oligonucleotide Chemistry to join our discovery chemistry team to advance cutting-edge RNA editing drug discovery programs.

Responsibilities:

- Executes synthesis, analysis and purification of novel oligonucleotides in the lab
- Operates, maintains and troubleshoots oligonucleotide synthesis equipment
- Track progress against project timelines, generate regular status updates, and communicate progress and issues to management
- Maintain a well-documented laboratory notebook and internal oligonucleotide inventory
- Adhere to safe laboratory practices

Requirements / Qualifications:

- B.S. chemistry or biochemistry degree with excellent understanding of organic and analytical chemistry
- Experience working in a chemistry laboratory
- Experience with a wide range of analytical techniques, especially HPLC
- Self-motivated, detail oriented and excellent problem-solving ability

Compensation

- This is a full-time position, Monday-Friday 8am – 5pm and occasional overtime
- Pay commensurate with experience
- 401k with company match
- Medical, Dental, Vision, Life Insurance, FSA, Employee Assistance Program, Employee Discounts
- Performance based bonuses
- PTO and Holidays

Job Type: Full-time

Salary: \$50,822.00 to \$89,119.00 /year

Education:

- Bachelor's (Preferred)

Location:

- San Diego, CA 92121 (Required)

FINDING A PLACE TO LIVE

Keeping in mind Frank's income, find him a place to live that he might be able to afford within commuting distance to 92121 (La Jolla-UTC area). Evaluate whether it makes more sense to buy a condo/house or rent an apartment and how much each might cost. To evaluate whether he can buy a property, find out how much of a down payment he would need (hint: usually 20% of the house price). Look at potential houses/townhouses/condos. How much of a mortgage payment would he end up with each month? Can he afford that? After you look at that, you can evaluate the rental market. Even with an apartment, he will need a security deposit to secure the apartment which is usually one month's rent up front. Your mission should you choose to accept it is to find out what Frank can afford and put forward his best options.



HOUSING WORKSHEET

You will need to decide if Frank should be looking to buy a house/condo or looking to rent an apartment. You will need to look at Frank's finances and local home and condo prices to see if this is something feasible for Frank. You may be itching to go and start looking for a house for sale but there are a few things you have to calculate before getting to the fun part.

SOME BACKGROUND

Most financial advisers suggest that an individual not spend more than 28% of their gross monthly income on housing expenses (that includes mortgage, insurance, repairs, maintenance, and lawn care). To take that a step further, they also suggest not spending more than 36% on total debt including student loans, car expenses, and credit card payments.

1. Calculate Frank's Monthly Income



First things first—you need to figure out how much take home pay Frank will receive each month. There are many taxes that are automatically taken out of each paycheck so the take home pay is much less than what you think you might get signing up for a \$75,000/year job.

Go to this web site and it will show you exactly what Frank's take home pay will be when he gets paid twice a month (semi-monthly).

<https://smartasset.com/taxes/california-paycheck-calculator>

Take a minute to scroll down and see where the money is going. There are more thorough explanations of what these taxes are if you are interested. But they definitely affect how much actual cash you take home so you have to account for that.

Frank's semi-monthly income: _____

Multiply this by 2 to get Frank's monthly income: _____

You will need this monthly income to further evaluate Frank's housing options.

2. What Can Frank Afford to Purchase



This web site walks you through figuring out how much Frank can afford.

Go to the website below and enter in his monthly take home pay (which you figured out in Step 1) and see what it says.

<https://www.daveramsey.com/blog/how-much-house-can-i-afford>

What is the maximum mortgage payment that Frank can afford according to this website? _____

With a 20% down payment, what is the top price Frank can afford to pay for a property?

NOTE: Did you know that the mortgage payment is not all that you have to pay each month as a homeowner? You also have to pay property taxes and homeowner's insurance which can add as much as \$200 or more each month. Then if there are homeowner's association dues, that must be added in as well to Frank's monthly budget (these can range from \$100 up to \$1,000).

So, let's look at a ballpark figure here. Take the top price that Frank can afford to pay for a property and multiply it by .20 to find out how much a 20% down payment would be on the property.

Top price for a property x .20 = _____

Keep in mind that Frank has \$15,000 in his savings account.

QUESTIONS:

1. Answer this—Can Frank afford to buy a property at this time (yes or no)? _____
2. Using a site like <http://redfin.com>, can you even find properties that are within Frank's budget?

3. Do you think Frank should look to buy or look to rent at this time? _____

APARTMENT RENTALS



So it looks like Frank must rent a place for the near future. If he wants to, he can plan out a financial goal to save a bit each month for that future house. He just has to put it in his monthly budget.

You have already done some of the calculations needed to see how much Frank brings home each month in take home pay (after taxes).

Monthly take home pay: _____

Method 1 —25% Rule

There are two ways to look at how much he wants to spend on a rental each month. You can do the quick math of multiplying his monthly income times .25 to see what 25% of his pay would be.

Put that number here (monthly income x .25)= _____

Or you can put together a monthly budget of all his other known or estimated costs each month and see how much is left over or how to shuffle things to afford a nice place to live. But let's just try looking for apartments in the approximate range of \$100 below and above the number you found above (25% of his monthly income number) to start with.

Go to this web site and find the area of San Diego and UTC La Jolla (zip code is 92122). See what apartments are available in Frank's price range. You may have to zoom out if you can't find anything in that zip code. Prices get cheaper as you head east and north from San Diego.

<http://hotpads.com>

How many apartments do you see for rent for that amount? _____

Do any of them look good (yes/no)? _____

Do you think that Frank may have to spend more than the recommended 25% of his income on renting a place (yes/no)? _____

NOTE: Other options for Frank might include finding a roommate situation where he would pay a portion of the rent for a 1 bedroom inside a 2 or 3 bedroom apartment. If Frank wanted to stay under 25% of his pay, he would probably need to do this. But let's see if Frank can stretch his budget a little and find a place on his own.

Method 2—What is out there?

When housing prices are very high in a region like San Diego because so many people want to live there, it may be difficult to find something for rent in Frank’s price range. The next best thing he can do is start looking for what is out there that is closest to his optimal price range. This means that there might be other things Frank has to sacrifice (buying a less expensive, used car instead of a new one, for example) in order to be able to afford a place to live.



Do another search on <http://hotpads.com> and choose the filter “Studio” (this is smaller than a 1 bedroom as the living area and bedroom are all in one space) or “1 bedroom” and bring the price up a few hundred dollars from what you searched on before.

Questions:

1. Can you find anything more suitable for Frank (yes/no)? _____
2. Are there more choices for him at this price point (yes/no)? _____
3. If no to #1 and #2, increase the apartment price by another \$100-200 a month. List below 2 apartments that might work for Frank with their address and cost.
 - a. Apartment 1: _____
 - b. Apartment 2: _____

Apartment Details

Place a check for yes and fill in the details for each apartment.

| Details | Address 1 | Address 2 |
|--|-----------|-----------|
| Laundry On Site (means coin operated machines are on site for resident’s use--if this is not available, Frank will use the Laundromat) | | |
| Parking on site (this means an assigned parking spot at the apartment property- if parking is off-site, that means Frank will have to search nearby streets for parking every time he comes and goes) | | |
| Utilities - which ones are to be paid by Frank? Water? Gas and electric? | | |
| How much is the security deposit? (This is the amount you pay up front to an owner/management company which you receive back at the end of your tenancy. If you do not return the apartment in good shape, the owner or management company can deduct some or all of the security deposit.) This is an additional fee to the first month’s rent. | | |
| Any other amenities like a gym or swimming pool? | | |
| How far in miles is Frank’s commute to the office building of his new job at 4757 Nexus Center Dr, San Diego CA 92121? Use Google maps. | | |

The BIG Questions

Does Frank have enough money in checking and savings to afford the first month’s rent and security deposit combined (yes/no)? _____

Which apartment seems like the best fit for Frank? _____



FRANK'S MONTHLY BUDGET

With the housing figured out, you now know how much Frank will be spending on his place each month. Let's take a look now at other monthly expenses so you can figure out how much Frank can spend on a car. Fill in the Housing portion of this budget and then add up expenses. You can change the figures as you like—just don't go over Frank's monthly income.

| Expenses | Monthly Amount |
|---|----------------|
| Housing | |
| Utilities (gas/water/electricity—if not included in rent, add \$100) | |
| Cell phone (data, plan, apps) | \$60 |
| Cable/online video streaming/Internet | \$50 |
| Online gaming (Playstation Network) | \$25 |
| Furnishings/Appliances | |
| Lawn/Garden | |
| Donation to Charity/Gifts | \$25 |
| Auto Loan Payments | COMING NEXT |
| Auto Insurance | COMING NEXT |
| Gas for auto (depends on commute & range of miles per gallon on car) estimate \$200 | \$200 |
| Auto repairs (average is \$50/month) | \$50 |
| CA driver's license fee (\$60/year so \$5/month) | \$5 |
| Parking | |
| Health Insurance (company has good health insurance- estimate \$100/month for this) | \$100 |
| Gym dues | \$25 |
| Medicine/Prescriptions/Toiletries | \$20 |
| Groceries | \$400 |
| Eating Out (includes coffee, snacks, meals) | \$600 |
| Clothing and shoes | \$200 |
| Haircuts | \$30 |
| Entertainment (movies, sports games, etc.) | \$250 |
| Put in Savings Account | \$150 |
| Saving for Retirement (401k) | \$200 |
| Saving for a House | \$200 |
| TOTAL EXPENSES | |

Now, fill this in:

MONTHLY INCOME (per previous exercise) – TOTAL EXPENSES = _____

This is how much Frank has to play with to cover both a car payment and car insurance.



FRANK'S SAVINGS ACCOUNT

Let's not forget about Frank's Savings Account as well. So, let's take a look. Frank has \$15,000 in Savings.

How much is he going to need for his security deposit and first month's rent? _____

Good. Now, let's look at his need for furnishing a place to live. He thought he might need \$2,000-\$3,000 to fully furnish his place but is that realistic? **Remember** he still needs to have money as a down payment for a car and he is going to use some of his Savings for that.

Do some price checking for him by looking up prices online and come up with a budget for furnishings.

NOTE: There are cheaper places to find furniture like IKEA or off sites like Craig's List or the Goodwill Donation Center or places like that.

| Item | Price |
|---|-------|
| Bed | |
| Flat Screen TV and gaming console (PS4) | |
| Couch | |
| Comfy Chair | |
| Bookshelves (3) | |
| Dining Table and chairs | |
| Dresser and mirror | |
| Night tables | |
| Coffee table | |
| Wall art | |
| Microwave | |
| Dishes and silverware, pots, pans, etc. | |
| Trash cans, shower curtain, etc. | |
| TOTAL | |

So, now subtract. Savings – security deposit and 1st month's rent. Then subtract the total amount of money spent on furnishings to find out how much Frank has left in savings. You will need this number when deciding on an auto loan.

\$15,000 - security deposit and 1st month's rent = _____ - furnishings _____ = _____

FINDING A CAR



Now that housing is taken care of for Frank, you can move on to finding him a car. You will need to choose whether he can afford a new one or a used one. You will evaluate 3 payment options (SDCCU car loan, Wells Fargo car loan, and a car loan from the dealer where he is purchasing the car). Again, to get a better loan, Frank will be putting a down payment on the car from his savings. Remember that he started with \$15,000 in savings but he has used some for his security deposit and first month's rent as well as his furnishings for his place. So now what car can he afford and how much will the car insurance be?

HOW MUCH CAN FRANK AFFORD?

Car insurance is a complicated thing and the cost of it depends on your zip code where you live, the year and make of your car, whether you have been in previous accidents, whether you are married, your age, and your sex. Driving a sports car can mean a significant increase in your insurance costs. Being an unmarried male under 25 who has been in an accident can also increase your insurance rates. So to simplify things for this exercise, we did a quick search on Car Insurance for a 25 year old in California and it runs about \$2163/year. That means that Frank will have to pay **\$180/month** just for car insurance. So, keep that in mind for Frank's total budget. You might want to add this to Frank's budget listed above and see how much is left per month for a car.

Purchasing a Car (walking you through the steps)

<https://www.smartaboutmoney.org/Courses/My-Transportation-Plan/The-True-Costs-of-Car-Ownership>

Read the first page and then click Next.

Read what is there and click on the link:

How much vehicle can I afford calculator?

<https://www.calcxml.com/do/aut06>

To get started, let's assume that Frank can spend \$5,000 on a down payment and doesn't want to pay more than \$300/month in a car payment on a 48 month loan. Currently, SDCCU has auto loans around 3.15% (that means you pay 3.15% interest on the loan amount--the higher this rate, the more you will pay). Using the calculator on the web site, plug in these numbers to see how much Frank can spend on a car. Put that number here: _____

You probably don't want a car loan for longer than 60 months (5 years) but you can put more of his savings into a down payment or raise the monthly car payment if you want. Play with the numbers and see what you might think Frank will be comfortable with.

RESEARCHING AUTO LOANS

SDCCU

<https://www.sdccu.com/rates/vehicle-loan-rates/>

Go to this web site and notice that the rates change depending on the model and year of the car. Notice also that you can loan the money over a longer length of time the more money you borrow.



Write down the rates here for:

2016 and newer for 42 months: _____

2010-2015 for 42 months: _____

You will need these later when you compare cars.

WELLS FARGO AUTO LOANS

Look up Wells Fargo Auto Loan Rates here: <https://auto.loan/banks/wells-fargo-auto-loan-rates/>

Used car loan rate: _____

New car loan rate: _____

DEALER AUTO LOANS

Look up a car dealer in San Diego (like Honda or Acura) and go to the Finance section of their web site to see what their auto loan rates are. For example, if you go to Pacific Honda and go to Payment Calculator under Finance, you can see that their loan rate is 4% (<https://www.pacifichonda.com/payment-calculator>).

See if you can find a rate for a user car and new car. Sometimes it can be hard to find.

Used car loan rate: _____

New car loan rate: _____

CAR SHOPPING

You have researched loans and know about how much Frank can spend on a car so now it's time to look around. If you need to, go back to the link on the previous page for how much Frank can afford and plug in numbers. Here are some sites:

Looking for used cars?

Try: <http://carmax.com>

New cars?

<http://autotrader.com>

QUESTION:

1. Did you find a car that Frank can afford (yes/no)? _____
2. What kind of car (make and model) and how much is it? _____
3. Which car loan looks like the best fit for Frank (Wells Fargo, SDCCU, car dealership) and why?

4. How much will Frank pay for his monthly car payment? _____