Day 1 Fri 01/31				Day 2 Sat 02/01				Day 3 Sun 02/02				Day 4 Mon 02/03				Day 5 Tue 02/04				Day 6 Wed 02/05				Day 7 Thur 02/06			
Date and time	Activity	Duration (time) or	Duration units	Date and time	Activity	Duration (time) or	Duration units	Date and time	Activity	Duration (time) or	Duration units	Date and time	Activity	Duration (time) or	Duration units	Date and time	Activity	Duration (time) or	Duration units	Date and time	Activity	Duration (time) or	Duration units	Date and time	Activity	Duration (time) or	Duration units
1/31/2025 5:30-12:00	ing lights in hou	23400	seconds	02/01/25 10:00	Watch TV	7200	seconds	02/02/25 7:30	Microwave	90	seconds	02/03/25 7:30	Microwave	90	seconds	02/04/25 7:30	Microwave	90	seconds	02/05/25 7:30	Microwave	90	seconds	02/06/25 7:30	Microwave	90	seconds
1/31/2025 18:30	Shower	670	seconds	2/1/2025 4:00	Shower	540	seconds	02/02/25 3:00	Watch TV	10800	seconds	02/03/25 2:00	Drive	24	km	2/04/25 1:00-3:0	PC at work	7200	seconds	2/05 12:00-3:0	PC at work	10800	seconds	02/06 12:00	Drive	2.3	miles
01/31/25 7:00 pm	Blow dry hair	900	seconds	02/01/25 4:15	Blow dry hair	900	seconds	02/2025 5:30-12	ing lights in hou	23400	seconds	02/03/25 5:30	Shower	420	seconds	2/04/25 6:00-8:3	enter fields (ligh	12600	seconds	02/05/25 4:00	Cooking	2700	seconds	02/06 1:00-3:00	PC at work	7200	seconds
1/26/2025 8:00	Watch TV	10800	seconds	02/01/2025 5:30-12:00	ing lights in hou	23400	seconds	##########	Cooking	4500	seconds	03/2025 5:30-12	ing lights in hou	23400	seconds	/04/25 9:30-12:	ing lights in hou	9000	seconds	/05/25 7:00-12:	ing lights in hou	18000	seconds	02/06 3:00	Drive	2.3	miles
01/31/25 8:30	Microwave	300	seconds	02/01/25 7:45	Drive	1.9	km	##########	Shower	320	seconds	02/03/25 5:45	Blow dry hair	900	seconds	02/04/25 9:45	Shower	540	seconds	02/05/25 7:00	Shower	420	seconds	2/06/25 6:00-8:3	enter fields (ligh	9000	seconds
				2/1/2025 8:00 PM	aundry (3 loads	13500	seconds									##########	Blow dry hair	900	seconds	02/05/25 7:20	Blow dry hair	900	seconds	/06/25 9:30-12:	ing lights in hou	9000	seconds
				02/01/25 9:35	Drive	1.9	km													2/5/2025 7:45:00:00	Cooking	1800	seconds	02/06/25 9:45	Shower	540	seconds
				2/1/2025 10:00 AM	Cooking	1200	seconds																	##########	Blow dry hair	900	seconds

Report all instances of an Activity Type

For this assignment, if you have a natural gas dryer, you can record only the natural gas consumption and ignore the electrcity consumption required to spin the drum and its associated emissions.

Summarize the "All Activities" worksheet here by activity type

Activity Number	Activity Type	Duration of Distance (per	Units	Rate of Fuel/Product	Units of rate of consumption (e.g.	Energy content OR	Units (kJ/gal, Btu/gal	Total energy consumption	Units (kJ)	Emission factor	Units	Total CO2 (kg)	Sources	Assumptions/Notes
Example	*Driving*	*210*	*mi*	*0.045454545*	*gal/mi*	*132000*	*kJ/gal*	*1260000*	*kJ*	*0.00006656*	*kgCO2/kJ*	*83.8656*	*EPA energy intensity and emissions factor for gasoline*	*I assumed that my car gets an average of 22 mpg*
1	Cooking	10188	*hr*	N/A		2.1	kJ/sec	*21394.8*	BTU	*0.00005306*	*kgCO2/BTU*	*1.135208088*	USed the provided Energy Reference Note for emissions factor of cooking with g	USed the provided Energy Reference Note
2	PC at work	25200	*seconds*	N/A		0.3	kJ/sec	*7560*	kJ	0.000067	*kgCO2/kJ*	*0.50652*	USed the provided Energy Reference Note for emissions factor of electricity fron	Assume 300 W PC (used average w for double screen pc)
3	Shower	3450	*seconds*	0.0417	gal/sec	15.2	kJ/sec	*2186.748*	kJ	0.0000502	*kgCO2/kJ*	*0.10977475*	USed the provided Energy Reference Note for emissions factor of showering	USed the provided Energy Reference Note
4	Laundry (both washing + drying)	10800	*seconds*	N/A		2.35	kJ/sec	*12690*	kJ	0.000067	*kgCO2/kJ*	*0.85023*	USed the provided Energy Reference Note for emissions factor of laundry	USed the provided Energy Reference Note
5	*String lights in house*	129,600	*seconds*	N/A		0.0192	kJ/sec	*2488.32*	kJ	0.000067	*kgCO2/kJ*	*0.16671744*	USed the provided Energy Reference Note for emissions factor of electricity fron	Assume 19.2 Watt string lights (found on plug)
6	Microwave	750	*seconds*	N/A		1.25	kJ/sec	*937.5*	kJ	0.000067	*kgCO2/kJ*	*0.0628125*	USed the provided Energy Reference Note for emissions factor of electricity fron	Assume 1250 W microwave (found on plug)
7	Watch TV	28,800	*seconds*	N/A		0.11	kJ/sec	*3168*	kJ	0.000067	*kgCO2/kJ*	*0.212256*	USed the provided Energy Reference Note for emissions factor of electricity fron	Assume 110 W Tv (found on plug)
8	Driving	32	*miles*	0.015151515	*gal/mi*	*132000*	*kJ/gal*	*64800*	kJ	*0.00006656*	*kgCO2/kJ*	*4.313088*	*EPA energy intensity and emissions factor for gasoline*	Assume I am always driving with my housemate
9	Blow drying hair	5400	*seconds*	N/A		1.875	kJ/sec	10125	kJ	0.000067	*kgCO2/kJ*	*0.678375*	USed the provided Energy Reference Note for emissions factor of electricity fron	Assume 1875 Watt Blow Dryer (found on plug)
10*	Road trip to Seattle From SB	1163	Miles	0.015151515	*gal/mi*	*132000*	*kJ/gal*	2326000	*kJ*	*0.00006656*	*kgCO2/kJ*	154.81856	*EPA energy intensity and emissions factor for gasoline*	I assue my friends toyota corolla gets 33 but (2 passengers)

Weekly Total (kg CO2)	8.034981778
Annual Total (kg CO2)	572.6376124

1) Which weekly activity consumed the most energy?	2) Which weekly activity was responsible for the highest emissions?
Driving was the highest energy consumption. It was around 60,000 while many of the other activites that I thought would consume more energy were in the thousands not tens of thousands. Cooking was the next up in highest energy consumption, but it was still only ⅓ of the Driving's total.	There is no surprise that Driving and Cooking were my highest emitting activities. I like to cook and bake so it uses a lot of energy and creates emissions. Also I don't drive a lot but it burns gas so it makes sense that the CO2 emissions are high. I am not surprised that these are the two highest emitters.

3) How do the energy consumption and CO2 emissions of your long trip compare with the annual consumption and emissions from your weekly activities (weekly consumption or emi
My weekly energy and CO2 emissions is nowhere near as large as my annual emissions due to my long road trip. It is safe to say I have never been on a long road trip like that in my life, and I don't do it often, but the emissions from the road trip were almost 100x the amount of my weekly emissions. I don't own a car, so i mostly use my bike to get around so it is crazy to see what the emissions from fuel burning vehicles really is.

4) What surprised you?	5) Where do you see opportunities to reduce your carbon impact?
It surprised me that blow drying my hair for 15 on an almost daily basis creates more emissions than leaving my string lights in my living room on for 5+ hours every single day. When I was a kid my mom always used to scold us for leaving the lights on and wasting energy but it was one of the least emitting activities on my list. It also surprised me just how much emissions I created on my road trip. The calculated amount was only half of the total amount because I carpooled with my friend. And this was just the drive up!	My carbon impact is relatively low, but I could stop blow drying my hair and let it air dry as my blow drying was making up for a good amount of my weekly emissions. I can't stop washing my clothes because I need clean clothes, but maybe reducing the amount of loads or wearing my clothes a few more times before washing could also cut my emissions down. I could also consider taking the bus when I need to get around because the bus system is now electric and has ess emissions.

Resources

Emissions factors for fuels (including electricity)	EPA
Flight emissions	https://www.icao.int/environmental-protection/Carbonoffset/Pages/default.aspx
Showering Emissions Factor	See Reference Note: Energy and Emissions
EPA GHG Calculations/References	EPA

Notes

Focus only on carbon dioxide emissions and not CH4, NOx, SOx

For electrical appliances like computer, lighting, phone charging, microwave etc, look for the rating of the appliance in Watts (note this is a simplistic method for some appliances like computers that don't consume energy at the same rate as their charging device rating.

You may find energy and carbon emissions factors in different units than those provided in the examples above. Use unit conversions to get your final answers for total energy use and total CO2 emissions in the kJ and kgCO2 units respectively.

For electricity, you will have to keep in mind your location, as the carbon intensity of the electric grid will change. For US locations, use EPA eGRID data to get emissions factors