

Data Analysis Using SQL on NFLX stock dataset

NFLX is the stock ticker symbol for **Netflix, Inc.**, a popular global streaming service and entertainment company. The NFLX stock refers to the shares of Netflix traded on stock exchanges, typically the **NASDAQ** in the U.S.

In the context of the dataset, NFLX represents the historical stock data of Netflix, including prices such as opening, closing, highest, and lowest prices, as well as metrics like volume, moving averages, and technical indicators like RSI and MACD.

Stock data typically contains several key financial metrics and indicators that traders use to understand the performance of a stock:

1. **Open/Close Price:**
 - **Open:** The price at which a stock begins trading when the market opens.
 - **Close:** The price at which the stock was last traded when the market closes.
2. **High/Low Price:**
 - **High:** The highest price reached during the trading day.
 - **Low:** The lowest price reached during the trading day.
3. **Volume:**
 - The number of shares traded during a specific period. Higher volume can indicate stronger investor interest or reactions to news.
4. **Moving Averages (SMA, EMA):**
 - **SMA** (Simple Moving Average) and **EMA** (Exponential Moving Average) are indicators that smooth out price data over a specific number of days (e.g., 50 or 100 days). They help investors understand overall trends (upward or downward) and predict future price movements.
5. **RSI (Relative Strength Index):**
 - RSI is a momentum indicator that measures the speed and change of price movements. It ranges from 0 to 100, where values above 70 may indicate an overbought stock, and values below 30 may indicate an oversold stock.
6. **MACD (Moving Average Convergence Divergence):**
 - MACD is a trend-following momentum indicator that shows the relationship between two moving averages of a stock's price. A positive MACD value suggests upward momentum, while a negative value indicates downward momentum.
7. **Bollinger Bands:**
 - This is a volatility indicator formed by a moving average with two standard deviations plotted above and below it. They help to assess whether the stock price is high or low relative to its moving average.

8. True Range & ATR (Average True Range):

- These metrics measure volatility by calculating the range between a stock's high and low prices. ATR is the moving average of the True Range over a specific period.

The **NFLX stock dataset** contains the following columns:

- **date**: Date of the stock price record.
 - **open**: Opening stock price for the day.
 - **high**: Highest stock price of the day.
 - **low**: Lowest stock price of the day.
 - **close**: Closing stock price for the day.
 - **volume**: Number of shares traded.
 - **rsi_7**: 7-day Relative Strength Index.
 - **rsi_14**: 14-day Relative Strength Index.
 - **cci_7**: 7-day Commodity Channel Index.
 - **cci_14**: 14-day Commodity Channel Index.
 - **sma_50**: 50-day Simple Moving Average.
 - **ema_50**: 50-day Exponential Moving Average.
 - **sma_100**: 100-day Simple Moving Average.
 - **ema_100**: 100-day Exponential Moving Average.
 - **macd**: Moving Average Convergence Divergence.
 - **bollinger**: Bollinger Band value.
 - **TrueRange**: True range of stock prices for the day.
 - **atr_7**: 7-day Average True Range.
 - **atr_14**: 14-day Average True Range.
 - **next_day_close**: Closing price of the stock on the next day.
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-- 1. Write a query to select all columns from the NFLX_Stock table

select * from nflx_stock;

	date	open	high	low	close	volume	rsi_7	rsi_14	cci_7	cci_14	sma_50
▶	2014-01-02	52.401428	52.511429	51.542858	51.831429	12325600	34.729663839045244	49.183583659838305	-89.573201323852	-131.28857946690368	50.1128285
	2014-01-03	52	52.495712	51.842857	51.871429	10817100	35.58788607651576	49.457208401644785	-65.8205812919158	-103.02618884626129	50.2287711
	2014-01-06	51.889999	52.044285	50.475716	51.367142	15501500	29.820673799625965	46.08790036269541	-121.4725591924588	-139.64056559334452	50.3125711
	2014-01-07	49.684284	49.69857	48.152859	48.5	36167600	14.371863356546385	32.52209136587231	-206.76217137001646	-238.02912027804925	50.3362285
	2014-01-08	48.104286	49.425713	48.074287	48.712856	20001100	18.04904509190382	34.07354875015713	-117.83670671353	-180.76680138531796	50.3732565
	2014-01-09	48.824287	49.139999	47.857143	48.150002	17007200	11.18.04904509190382	31.979691589159543	-88.16874862929897	-153.83992668003015	50.4391141
	2014-01-10	48.295715	48.377144	47.218571	47.44857	16237900	13.62092077157051	29.543216566509457	-87.12500122399672	-138.8479733578536	50.4529426
	2014-01-13	47.304287	49.810001	47.304287	48.115715	27237000	25.618425094434144	34.643516467214525	-46.12186559921501	-92.9743235364986	50.5062851
	2014-01-14	48.777142	48.799999	47.509998	48.279999	19740000	28.472574865574728	35.87453097786059	-54.55599413642856	-83.14457703748937	50.5505141
	2014-01-15	47.857143	48.367142	45.581429	47.197144	40432000	21.985261782663358	31.643736098915184	-162.11870484644805	-102.22692979831508	50.5536856
	2014-01-16	46.915714	47.695713	46.002857	47.382858	21135800	25.38679665498175	33.100921774325954	-103.7743830412719	-91.63459107265692	50.5367711
	2014-01-17	47.438572	47.831429	46.89143	47.148571	16417100	23.855904834569884	32.169244155015335	-54.691242006135376	-75.6215291311039	50.5040285
	2014-01-21	47.46143	47.495712	45.75	46.958572	25220300	22.568292260742922	31.397439116734162	-95.25652554554593	-90.17239788390171	50.4842576
	2014-01-22	47.07143	47.777142	46.764286	47.675713	48342000	37.43793176954388	37.493251364482425	-5.306036383047618	-60.07086482327764	50.5038856

-- 2 Select the date, open, close, and volume for all stock entries

select date, open, close, volume from nflx_stock;

	date	open	close	volume
▶	2014-01-02	52.401428	51.831429	12325600
	2014-01-03	52	51.871429	10817100
	2014-01-06	51.889999	51.367142	15501500
	2014-01-07	49.684284	48.5	36167600
	2014-01-08	48.104286	48.712856	20001100
	2014-01-09	48.824287	48.150002	17007200
	2014-01-10	48.295715	47.44857	16237900
	2014-01-13	47.304287	48.115715	27237000
	2014-01-14	48.777142	48.279999	19740000
	2014-01-15	47.857143	47.197144	40432000
	2014-01-16	46.915714	47.382858	21135800
	2014-01-17	47.438572	47.148571	16417100
	2014-01-21	47.46143	46.958572	25220300
	2014-01-22	47.07143	47.675713	48342000
	2014-01-23	55.342857	55.531429	91280000

-- 3 Retrieve the date with the highest volume.

select max(volume) as Maximum_volume from nflx_stock;

	Maximum_volume
▶	133387500

-- 4 Retrieve stock data from January 2020

```
select * from nflx_stock where year(date) >= 2020;
```

	date	open	high	low	close	volume	rsi_7	rsi_14	cci_7	cci_14	sma_50
▶	2020-01-02	326.100006	329.980011	324.779999	329.809998	4485800	62.930962253378205	62.84306352761459	-27.049879475158324	39.174455336612624	302.944
	2020-01-03	326.779999	329.859985	325.529999	325.899994	3806900	54.1929779839464	58.61873073389836	-32.80377027943557	24.32090591472036	304.128
	2020-01-06	323.119995	336.359985	321.200012	335.829987	5663100	67.5449997840364	65.04509484432307	69.0119890697106	49.590832528523634	305.419
	2020-01-07	336.470001	336.700012	330.299988	330.75	4703200	57.535520821225376	59.91858917393891	115.31455954485851	60.429402255063444	306.604
	2020-01-08	331.48999	342.700012	331.049988	339.26001	7104500	67.0721671031805	64.9081800418974	144.59776658820113	130.41838032378934	307.853
	2020-01-09	342	343.420013	334.609985	335.660004	4709300	60.379775985840965	61.42462795544074	106.68999401398523	121.496493909631	308.929
	2020-01-10	337.130005	338.5	327.269989	329.049988	4718300	49.74689343801471	55.531495342129226	-14.638531501722525	2.697682437160313	309.886
	2020-01-13	331.799988	340.850006	331.51001	338.920013	6290000	61.544221540665	61.475049142318966	68.76801709836519	101.47559975518456	310.835
	2020-01-14	344.399994	345.380005	335.519989	338.690002	7199400	61.15390042312789	61.26952953808976	95.42521280552882	129.95234103795826	311.861
	2020-01-15	338.679993	343.170013	336.600006	339.070007	5158000	61.62303013707393	61.49854085675583	77.25788903957778	106.9663733214026	312.906
	2020-01-16	343.5	343.559998	335.850006	338.619995	5016000	60.61172150357805	61.038256976564725	63.4785278170079	88.15715653231601	313.821
	2020-01-17	341	341.570007	337.380005	339.670013	6066500	62.29612483916163	61.75748196301883	56.286438056050834	77.31858646655772	314.854
	2020-01-21	340	341	332.589996	338.109985	14350300	57.99711976234983	59.985762700595025	-16.632274559862704	39.85777139367725	315.844
	2020-01-22	332.549988	336.299988	323.600006	326	21730000	35.69101219413207	48.38229738269028	-224.65033062403927	-97.27084627445288	316.573

-- 5 Retrieve the close price for March 1, 2021

```
select close from nflx_stock where date = '2021-03-01';
```

	close
▶	550.640015

-- 6 Find the total number of shares traded

```
select count(volume) from nflx_stock;
```

	count(volume)
▶	2516

-- 7 Calculate the average close price over the dataset.

```
select round(avg(close), 2) from nflx_stock;
```

	round(avg(close), 2)
▶	274.49

-- 8 Retrieve the maximum high price of the stock.

```
select max(high) from nflx_stock;
```

	max(high)
▶	700.98999

-- 9 Count the total number of trading days.

```
SELECT count(date) from nflx_stock;
```

	count(date)
▶	2516

-- 10 Find the average volume of shares traded per year.

select avg(volume) as avg_volume, year(date) from nflx_stock group by year(date);

	avg_volume	year(date)
▶	19438155.5556	2014
	18575888.0952	2015
	12836284.1270	2016
	6590004.7809	2017
	11469624.7012	2018
	7857728.9683	2019
	6933900.7905	2020
	3914700.3968	2021
	10876290.4382	2022
	6402027.2000	2023

-- 11 List all records where volume is greater than 10 million

select * from nflx_stock where volume > '10,00,00,000';

	date	open	high	low	close	volume	rsi_7	rsi_14	cci_7	cci_14	sma_50
▶	2014-01-02	52.401428	52.511429	51.542858	51.831429	12325600	34.729663839045244	49.183583659838305	-89.573201323852	-131.28857946690368	50.112828
	2014-01-03	52	52.495712	51.842857	51.871429	10817100	35.58788607651576	49.457208401644785	-65.8205812919158	-103.02618884626129	50.228771
	2014-01-06	51.889999	52.044285	50.475716	51.367142	15501500	29.820673799625965	46.08790036269541	-121.4725591924588	-139.64056559334452	50.312571
	2014-01-07	49.684284	49.69857	48.152859	48.5	36167600	14.371863356546385	32.52209136587231	-206.76217137001646	-238.02912027804925	50.336228
	2014-01-08	48.104286	49.425713	48.074287	48.712856	20001100	18.04904509190382	34.07354875015713	-117.83670671353	-180.76680138531796	50.373256
	2014-01-09	48.824287	49.139999	47.857143	48.150002	17007200	15.937606948821184	31.979691589159543	-88.16874862929897	-153.83992668003015	50.439114
	2014-01-10	48.295715	48.377144	47.218571	47.44857	16237900	13.62092077157051	29.543216566509457	-87.12500122399672	-138.8479733578536	50.452947
	2014-01-13	47.304287	49.810001	47.304287	48.115715	27237000	25.618425094434144	34.643516467214525	-46.12186559921501	-92.9743235364986	50.506281
	2014-01-14	48.777142	48.799999	47.509998	48.279999	3740000	28.472574865574728	35.87453097786059	-54.55599413642856	-83.14457703748937	50.550514
	2014-01-15	47.857143	48.367142	45.581429	47.177143	4432000	21.985261782663358	31.643736098915184	-162.11870484644805	-102.22692979831508	50.553681
	2014-01-16	46.915714	47.695713	46.002857	47.382858	21135800	25.38679665498175	33.100921774325954	-103.7743830412719	-91.63459107265692	50.536771
	2014-01-17	47.438572	47.831429	46.89143	47.148571	16417100	23.855904834569884	32.169244155015335	-54.691242006135376	-75.62152913111039	50.504028

-- 12 Retrieve the top 5 days with the highest close price, in descending order.

select date from nflx_stock order by close desc limit 5;

	date
▶	2021-11-17
	2021-10-29
	2021-11-03
	2021-11-16
	2021-11-12

-- 13 Retrieve all stock records from the year 2021.

select * from nflx_stock where year(date) = '2021';

	date	open	high	low	close	volume	rsi_7	rsi_14	cci_7	cci_14	sma_50
▶	2021-01-04	539	540.799988	515.090027	522.859985	4444400	49.8630519647495	53.38436956211402	24.686930795452252	20.49063326353178	501.067
	2021-01-05	521.549988	526.780029	515.890015	520.799988	3133900	48.10820096571804	52.3917341651397	-37.14456180656603	-49.41459077117613	501.777
	2021-01-06	511.970001	513.099976	499.5	500.48999	5346200	34.24533800920305	43.75364214620774	-163.81076578419228	-205.907248412147	502.018
	2021-01-07	508.279999	516.440002	506.420013	508.890015	3686400	42.27204604476555	47.60158475403211	-89.16409218712099	-112.16919406796453	502.431
	2021-01-08	511.309998	513.23999	504.51001	510.399994	2973900	43.713019519654324	48.28646309876834	-68.95844291693153	-103.70827464199539	502.866
	2021-01-11	507.839996	510.730011	497.950012	499.100006	3806200	35.89114271236963	43.684775338677596	-84.86647482619853	-134.8295251747626	503.111
	2021-01-12	500	501.089996	485.670001	485.670013	5990400	32.939721645528735	41.84167170087854	-129.77593941285178	-165.34449757971674	502.918
	2021-01-13	495.5	512.349976	493.01001	507.790009	5032100	47.10646295632766	48.38845372026635	-24.119662625919965	-76.12508867407887	503.558
	2021-01-14	507.350006	514.5	499.579987	500.859985	4177400	41.82986882838177	45.561526046735985	13.292639461815332	-62.014718334212496	503.894
	2021-01-15	500	506.320007	495.100006	497.980011	5895800	39.675141611309165	44.400611075137235	-60.265811102142415	-82.40105702701626	504.108
	2021-01-19	501	509.25	493.540009	501.769989	12315800	44.0963489171563	46.338365995226184	-15.794315960787873	-63.55236938507992	504.201
	2021-01-20	565.419983	593.289978	556.859985	586.340027	32637500	80.77570248965921	70.79665121988666	233.3333333333329	265.2598587023569	505.651
	2021-01-21	582.450012	588.75	570.400024	579.840027	11802100	76.2874408363492	68.22285866711628	117.53500914474247	193.97425190540054	506.958

-- 14 Get stock data where the close price is between \$50 and \$100.

select * from nflx_stock where close > '50,00,00,000' and close < '100,00,00,000';

	date	open	high	low	close	volume	rsi_7	rsi_14	cci_7	cci_14	sma_50
	2014-01-02	52.401428	52.511429	51.542858	51.831429	12325600	34.729663839045244	49.183583659838305	-89.573201323852	-131.28857946690368	50.112828
	2014-01-03	52	52.495712	51.842857	51.871429	10817100	35.58788607651576	49.457208401644785	-65.8205812919158	-103.02618884626129	50.228771
	2014-01-06	51.889999	52.044285	50.475716	51.367142	15501500	29.820673799625965	46.08790036269541	-121.4725591924588	-139.64056559334452	50.312571
	2014-01-23	55.342857	56.51857	53.927143	55.531429	91280000	81.88810641561929	69.48257456283818	233.3333333333334	249.71416571574952	50.657657
	2014-01-24	54.811428	55.814285	54.76857	55.154285	35466900	78.75407304600826	67.69148101042191	115.86839148818652	196.98240580289442	50.795285
▶	2014-01-27	55.341431	55.92857	52.937141	54.46143	32526900	72.7837331432634	64.40679477087076	68.07892791487541	140.12564616168345	50.930999
	2014-01-28	54.474285	58.201427	54.394287	58.110001	43590400	81.43185483027251	72.08781404232832	81.56986688467961	146.512057233428	51.135257
	2014-01-29	57.58857	58.191429	56.864285	57.202858	28968100	74.55963922075351	68.14999958868985	75.49202423300198	120.51637665773512	51.300542
	2014-01-30	58.157143	58.455715	57.35857	57.810001	18379200	76.13243587196897	69.35651124583849	85.00100463255998	103.87133909390828	51.457428
	2014-01-31	57.472858	58.914288	57.471428	58.475716	100	77.88166194261916	70.66852392724927	92.99855277755056	92.98856236322523	51.650457
	2014-02-03	58.842857	58.878571	57.245712	57.76857	20145300	71.39702733875727	67.36889806960389	62.4382024630097	76.89325587085861	51.842142
	2014-02-04	57.921429	58.361427	56.715714	57.987144	18066300	72.23080413251687	67.86829576430185	34.74936720466354	65.23798144695608	52.031828
	2014-02-05	57.592857	58.25	56.857143	57.774284	16762900	69.91526054700871	66.79616790295637	-11.374771605837683	59.20508783705867	52.1916

-- 15 Find days where the close price was lower than the open price.

select * from nflx_stock where 'close' < 'open';

	date	open	high	low	close	volume	rsi_7	rsi_14	cci_7	cci_14	s
▶	2014-01-02	52.401428	52.511429	51.542858	51.831429	12325600	34.729663839045244	49.183583659838305	-89.573201323852	-131.28857946690368	50.112828
	2014-01-03	52	52.495712	51.842857	51.871429	10817100	35.58788607651576	49.457208401644785	-65.8205812919158	-103.02618884626129	50.228771
	2014-01-06	51.889999	52.044285	50.475716	51.367142	15501500	29.820673799625965	46.08790036269541	-121.4725591924588	-139.64056559334452	50.312571
	2014-01-07	49.684284	49.69857	48.152859	48.5	36167600	14.371863356546385	32.52209136587231	-206.76217137001646	-238.02912027804925	50.401428
	2014-01-08	48.104286	49.425713	48.074287	48.712856	20001100	18.04904509190382	34.07354875015713	-117.83670671353	-180.76680138531796	50.518571
	2014-01-09	48.824287	49.139999	47.857143	48.150002	17007200	15.937606948821184	31.979691589159543	-88.16874862929897	-153.83992668003015	50.628571
	2014-01-10	48.295715	48.377144	47.218571	47.44857	16237900	13.62092077157051	29.543216566509457	-87.12500122399672	-138.8479733578536	50.738571
	2014-01-13	47.304287	49.810001	47.304287	48.115715	27237000	25.618425094434144	34.643516467214525	-46.12186559921501	-92.9743235364986	50.842857
	2014-01-14	48.777142	48.799999	47.509998	48.279999	19740000	28.472574865574728	35.87453097786059	-54.55599413642856	-83.14457703748937	50.957143
	2014-01-15	47.857143	48.367142	45.581429	47.197144	40432000	21.985261782663358	31.643736098915184	-162.11870484644805	-102.22692979831508	51.068571
	2014-01-16	46.915714	47.695713	46.002857	47.382858	21135800	25.38679665498175	33.100921774325954	-103.7743830412719	-91.63459107265692	51.178571
	2014-01-17	47.438572	47.831429	46.89143	47.148571	16417100	23.855904834569884	32.169244155015335	-54.691242006135376	-75.6215291311039	51.288571

-- 16 How many trading days were there in 2022?

select count(date) as trading_days from nflx_stock where year(date) = '2022';

	trading_days
▶	251

-- 17 Retrieve the close prices for all trading days before December 31, 2020.

select date, close from nflx_stock where date < '2020-12-31';

	date	close
▶	2014-01-02	51.831429
	2014-01-03	51.871429
	2014-01-06	51.367142
	2014-01-07	48.5
	2014-01-08	48.712856
	2014-01-09	48.150002
	2014-01-10	47.44857
	2014-01-13	48.115715
	2014-01-14	48.279999
	2014-01-15	47.197144
	2014-01-16	47.382858
	2014-01-17	47.148571
	2014-01-21	46.958572
	2014-01-22	47.675713

-- 18 List all stock records where TrueRange is greater than 5.

select * from nflx_stock where TrueRange > 5;

	sma_100	ema_100	macd	bollinger	TrueRange	atr_7	atr_14	next_day_close
335811	47.84111416	47.19547337036707	-0.5057159928508881	50.0798571	8.842856999999995	2.566260460375971	1.9996180132701256	55.154285
3516725	54.54721417999999	54.988081444950616	-0.6177939332519244	62.0957857	5.407142	2.275705942680174	1.9418984043245546	52.977142
348079	63.90604287	62.771397911470764	-1.3808375716048573	63.8167145	16.798576999999995	4.064640973911913	2.783176562211774	51.012856
5534454	55.86844296	53.417220751333915	0.33859524393534457	48.31892855	9.411431	2.737603315760983	2.120469170443576	61.205715
589512	57.862057160000006	60.82904430311458	2.2751633327289937	62.9294287	13.327140999999997	3.469997534274401	2.5245464416000094	81.650002
51483	71.76741418	74.21958006602979	3.3143392085763708	88.9233562	6.520004	2.425505671496192	2.0719931858602	95.094284
139479	78.87919974	81.63644626305938	1.9148897502164033	95.01071405	5.0800020000000075	2.655388393792717	2.4111448147220593	100.371429
993116	79.98711394	82.98973417329255	3.49214211641538	96.57749945	18.360000999999997	4.956229352942351	3.6094561373703953	114.769997
577114	84.27554259	87.88213943538767	4.146939871397166	104.26542815	6.5	4.12100346840816	3.7148671764271355	114.309998
121058	85.86492829000001	89.522709812774	4.995468577643891	107.53107075	10.230003000000001	4.805967294974236	4.129203081126246	123.709999
3450074	86.47574257000001	90.19968727673678	5.634858297434292	109.04121365	8.139991000000009	5.282256395692203	4.415687932474372	126.449997
3707375	87.13742825	90.91751668918081	6.290165088752303	110.5773563...	6.810005000000004	5.500506196307604	4.586710580154774	123.519997
9934896	87.77474252	91.56311167851615	6.498167103730765	111.8919277...	5.299994999999996	5.471861739692231	4.637659467286576	123.029999

-- 19 Retrieve the top 10 records with the highest macd values.

select * from nflx_stock order by macd desc limit 10;

	sma_100	ema_100	macd	bollinger	TrueRange	atr_7	atr_14	next_day_close
1723	345.5379999	347.26678657683294	24.347344374986562	396.4005005	9.149993999999992	12.782340341263746	12.600298535655092	431.959991
7253	416.16709962999994	426.5135055930151	24.170481685108484	485.85650344999993	31.179993000000024	26.601277981481342	22.219857586383714	492.98999
3305	414.58019959999996	424.47559631206593	24.0356629627139	481.87550215	18.820006999999976	25.83815881172823	21.53061640072092	527.390015
387	413.14829957	422.4799515910976	23.934485204854468	477.5190 481.87550215	5.010010000000002	27.007850780349607	21.73912481616099	523.26001
354	346.21929994	348.94387973372733	23.85005980287133	399.4339996	16.610016000000003	13.329151149654644	12.886706925965445	434.700012
769	346.88670014999997	350.64202096672284	23.407231003602988	402.90100094999997	10	12.85355812827541	12.68051357411077	424.450012
1354	411.75949952	420.41126364344296	23.292262681843226	472.55000165	54.409973000000036	25.67415757707454	20.71828749432722	524.880005
104	344.65950014000003	345.28692390161746	23.27271733248665	391.13500059999996	13.829987000000017	13.387731398141037	12.865706576859331	445.269989
176	410.36639954000003	418.28825886856305	22.07062989528208	467.1785019999999	48.119994999999996	20.884855006586957	18.12661937850623	525.5
9946	343.67590029	343.35615499053904	22.01160878976873	385.77950135000003	13.299987999999985	13.31402213116454	12.791531159694662	440.859985

-- 20 Write a query to calculate the difference between high and low prices for each day

select high, low, round((high - low), 2) as difference_price from nflx_stock;

	high	low	difference_price
▶	52.511429	51.542858	0.97
	52.495712	51.842857	0.65
	52.044285	50.475716	1.57
	49.69857	48.152859	1.55
	49.425713	48.074287	1.35
	49.139999	47.857143	1.28
	48.377144	47.218571	1.16
	49.810001	47.304287	2.51
	48.799999	47.509998	1.29
	48.367142	45.581429	2.79
	47.695713	46.002857	1.69
	47.831429	46.89143	0.94
	47.495712	45.75	1.75
	47.777142	46.764286	1.01