1. rank(ts_delta(retained_earnings/sharesout,64))

```
9    rank(ts_delta(retained_earnings / sharesout, 64))
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	CHN	TOP2000U	Fast Expression	4	1	0.15	Industry	On	Off	Verify

2. ts_rank(operating_income/close,210)

```
9    ts_rank(operating_income/close,210)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Ha
Equity	USA	TOP3000	Fast Expression	0	1	0.08	Industry	On	Off	Verify

3. ts_rank(operating_income/open,200)

```
9    ts_rank(operating_income/open,200)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	USA	TOP500	Fast Expression	0	1	0.08	Subindustry	On	Off	Verify

4. liabilities/assets

```
9    liabilities/assets
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	USA	TOP3000	Fast Expression	0	1	0.08	Industry	On	Off	Verify

5. TS_mean(fn_oth_income_loss_fx_transaction_and_tax_translation_adj_a,180)

```
9    TS_mean(fn_oth_income_loss_fx_transaction_and_tax_translation_adj_a,180)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	USA	TOP200	Fast Expression	14	1	0.08	Subindustry	On	Off	Verify

6. -scl12_buzz

```
9    -scl12_buzz
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	USA	TOP3000	Fast Expression	4	1	0.08	Market	On	Off	Verify

7. Ts_rank(fnd6_fopo/debt_lt,345)

```
9    Ts_rank(fnd6_fopo/debt_lt,345)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	USA	TOP3000	Fast Expression	0	1	0.08	Sector	On	Off	Verify

8. trade_when(pcr_oi_270 < 1, (implied_volatility_call_270-implied_volatility_put_270), -1)

```
1    trade_when(pcr_oi_270 < 1, (implied_volatility_call_270-implied_volatility_put_270), -1)
```

imulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handlin
Equity	USA	TOP3000	Fast Expression	4	1	0.08	Market	On	Off	Verify

9. ts_mean(fn_oth_income_loss_fx_transaction_and_tax_translation_adj_a,160)

```
9    ts_mean(fn_oth_income_loss_fx_transaction_and_tax_translation_adj_a,160)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handlin
Equity	USA	TOP3000	Fast Expression	0	1	0.08	Subindustry	On	Off	Verify

10. avg_news = vec_avg(nws12_afterhsz_sl);rank(ts_sum(avg_news, 60)) > 0.5 ? 1 : rank(-ts_delta(close, 2))

```
1    avg_news = vec_avg(nws12_afterhsz_sl);rank(ts_sum(avg_news, 60)) > 0.5 ? 1 : rank(-ts_delta(close, 2))
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handlin
Equity	USA	TOP3000	Fast Expression	9	1	0.08	Sector	On	Off	Verify

11. ts_mean(fn_oth_income_loss_fx_transaction_and_tax_translation_adj_a,300)

```
9    ts_mean(fn_oth_income_loss_fx_transaction_and_tax_translation_adj_a,300)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	USA	TOP500	Fast Expression	2	1	0.08	Subindustry	On	Off	Verify

12. trade_when(pcr_oi_270 < 1, (implied_volatility_call_270-implied_volatility_put_270), -1)

```
1    trade_when(pcr_oi_270 < 1, (implied_volatility_call_270-implied_volatility_put_270), -1)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	USA	TOP3000	Fast Expression	5	1	0.08	Sector	On	Off	Verify

13. rank(ts_delta(retained_earnings / sharesout, 64))

```
8
9    rank(ts_delta(retained_earnings / sharesout, 64))
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Hand
Equity	CHN	TOP2000U	Fast Expression	5	1	0.08	Subindustry	On	Off	Verify

14. multiply(rank(-returns), rank(volume/adv20), filter=true)

```
1    multiply(rank(-returns), rank(volume/adv20), filter=true)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Han
Equity	USA	TOP3000	Fast Expression	10	1	0.01	Sector	On	Off	Verify

15. -ts_rank(fn_liab_fair_val_l1_a,129)

```
8
9    -ts_rank(fn_liab_fair_val_l1_a,129)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	USA	TOP3000	Fast Expression	1	1	0.01	Subindustry	On	Off	Verify

16. anl4_adjusted_netincome_ft

```
1   anl4_adjusted_netincome_ft
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handl
Equity	USA	TOP3000	Fast Expression	4	1	0.08	Sector	On	On	Verify

17. vector_neut(-scl12_buzz,150)

```
9   vector_neut(-scl12_buzz,150)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Hand
Equity	USA	TOP3000	Fast Expression	5	1	0.08	Industry	On	Off	Verify

18. multiply(rank(-returns), rank(volume/adv20), filter=true)

```
1   multiply(rank(-returns), rank(volume/adv20), filter=true)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handli
Equity	USA	TOP3000	Fast Expression	52	1	0.08	Sector	On	Off	Verify

19. quantile(ts_rank(pretax_income,240))

```
1   quantile(ts_rank(pretax_income,240))
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	CHN	TOP2000U	Fast Expression	4	1	0.01	Market	On	Off	Verify

20. ts_backfill(vec_avg(nws12_prez_4l),800)

```
1   ts_backfill(vec_avg(nws12_prez_4l),800)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handlin
Equity	USA	TOP500	Fast Expression	0	1	0.08	Industry	On	Off	Verify

21. implied_volatility_call_120/parkinson_volatility_120

```
1  implied_volatility_call_120/parkinson_volatility_120
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	USA	TOP1000	Fast Expression	4	1	0.08	Subindustry	On	Off	Verify

22. decay_days = 2;
rel_days_since_max = rank(ts_arg_max(close, 30));
decline_pct = (vwap - close) / vwap;
decline_pct / min(ts_decay_linear(rel_days_since_max, decay_days), 0.01)

```
1  decay_days = 2;
2  rel_days_since_max = rank(ts_arg_max(close, 30));
3  decline_pct = (vwap - close) / vwap;
4  decline_pct / min( ts_decay_linear(rel_days_since_max, decay_days), 0.01)
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Handling
Equity	USA	TOP3000	Fast Expression	15	1	0.08	Sector	On	Off	Verify

23. new_data = ts_backfill(news_session_range,20);

days_since_max_news = ts_arg_max(new_data, 60);

weight = -exp(-days_since_max_news);

trade_when(days_since_max_news<30,weight,-1)

```
1  new_data = ts_backfill(news_session_range,20);
2
3  days_since_max_news = ts_arg_max(new_data, 60);
4
5  weight = -exp(-days_since_max_news);
```

Simulation Settings

Instrument Type	Region	Universe	Language	Decay	Delay	Truncation	Neutralization	Pasteurization	NaN Handling	Unit Ha
Equity	USA	TOP3000	Fast Expression	4	1	0.08	Subindustry	On	Off	Verify

N/B: IF THERE IS NEED, DO SOMETHING TO MAKE IT PERFECT