LAMPIRAN

UNISA
UNIVERSITAS 'AISYIYAH PALEMBANG
FAKULTAS KESEHATAN DAN TEKNOLOGI (FKesT)
PROGRAM STUDI :
S1 FARMASI
Jl. Kol. H. Burlian – Lr. M. Husin KM. 7,5 No. 907 Kota Palembang, Kode Pos 30152, Telp (0711) 417135
Email: farmasi@unisa-palembang.ac.id

FORMULIR BIMBINGAN SKRIPSI

Nama : Thoria Vika
NIM : 214820103026
Nama Pembimbing : 1. Dr. Gerry Nugraha, M. Sc., M.Farm
2. Deden Mula Saputra, S. Th.I.,M.Ud
Judul Skripsi : Eksplorasi Bahan Alam Yang Disebutkan Dalam Al-Qur'an Dan Hadits Yang Menargetkan Reseptor HMG-CoA Reductase Sebagai Anti-hiperlipidemia Dengan Metode Structure-based Virtual Screening.

No.	Tanggal Konsultasi	Keterangan	Paraf Pembimbing
1	14 Mei 2025	Revisian masalah judul	
2	26 Mei 2025	Revisian format dan penulisan bahasa:	
3	27 Mei 2025	Revisian format dan pemilihan bahasa b	
4	2 Juni 2025	Revisian prosedur kerja	
5	3 Juni 2025	Revisian struktur subbab	
6	4 Juni 2025	Revisian bab 4	
7	3 Juli 2025	Revisian bab 4 dan data hasil	
8	4 Juli 2025	Revisian bab 4 dan data hasil	
9	9 juli 2025	Revisian bab 4 dan data hasil	
10	17 Juli 2025	Revisian bab 4	
11	20 Juli 2025	Revisian bab 4	
12	22 juli 2025	Reviisan bab 4	
13	24 juli 2025	Revisian bab 5	
14	26 juli 2025	Revisian bab 5	
15	2 Agustus 2025	Acc proposal dan PPT semhas	

FAKULTAS ILMU KESEHATAN DAN TEKNOLOGI
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بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

FORMULIR
PERNYATAAN SELESAI REVISI PROPOSAL/ NASKAH SKRIPSI*)
(S-06)

Yang bertandatangan dibawah ini, tim penguji Skripsi 1/ Skripsi 2*):

Nama Mahasiswa : Thoria Vika

NIM : 214820103026

Judul Penelitian : Eksplorasi Ligan Anti-hiperlipidemia Berbasis Tumbuhan Dalam Al-qur;an dan hadits Dengan Metode *Structure-based Virtual Screening* (SBVS)

Pembimbing 1 : Dr. Gerry Nugraha,M.Sc., M.Farm

Pembimbing 2 : Deden Mula Saputra, S.Th.I., M.Ud

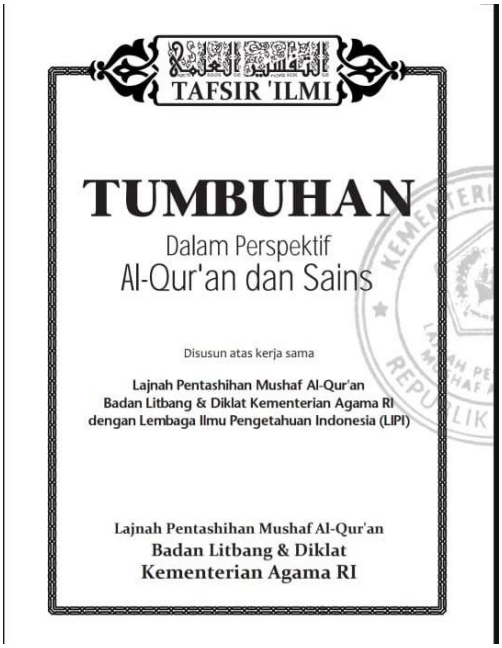
Tanggal Ujian :

Menerangkan bahwa naskah Proposal/ Skripsi*) telah selesai direvisi oleh tim penguji.

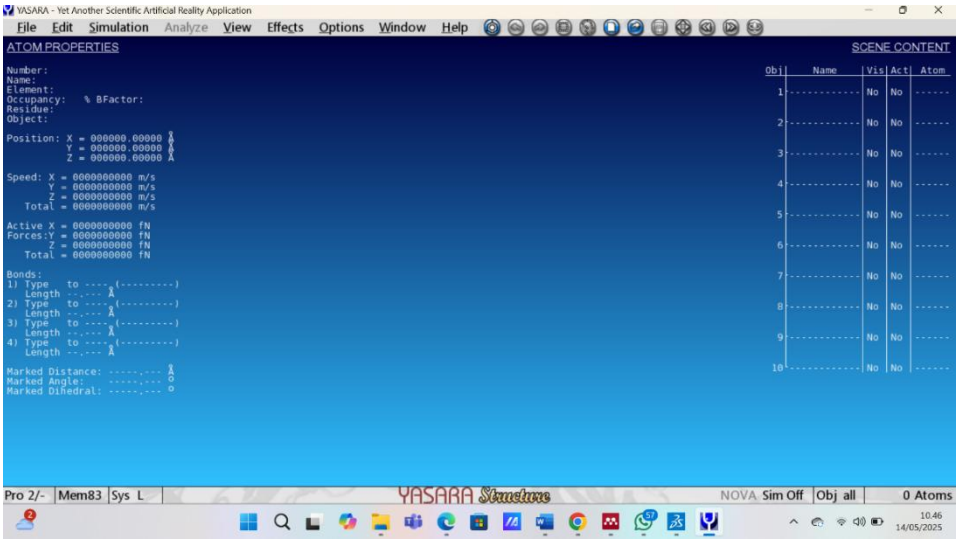
Nama	Tanda Tangan	Tanggal
1. Dr. Gerry Nugraha,M.Sc., M.Farm		
2. Deden Mula Saputra, S.Th.I., M.Ud		
3. Dr. Amrullah, M.Pd.I		
4. Ade Oktasari, M.Sc		

*) : Coret yang tidak perlu.

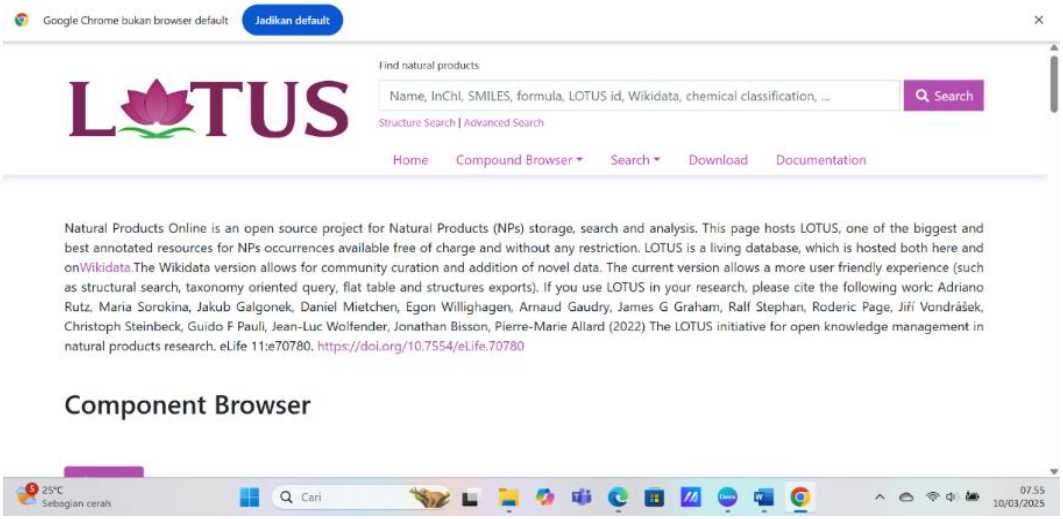
Lampiran 1. Kitab Tafsir Ilmi (Tumbuhan Dalam Perspektif Al-quran dan Sains)



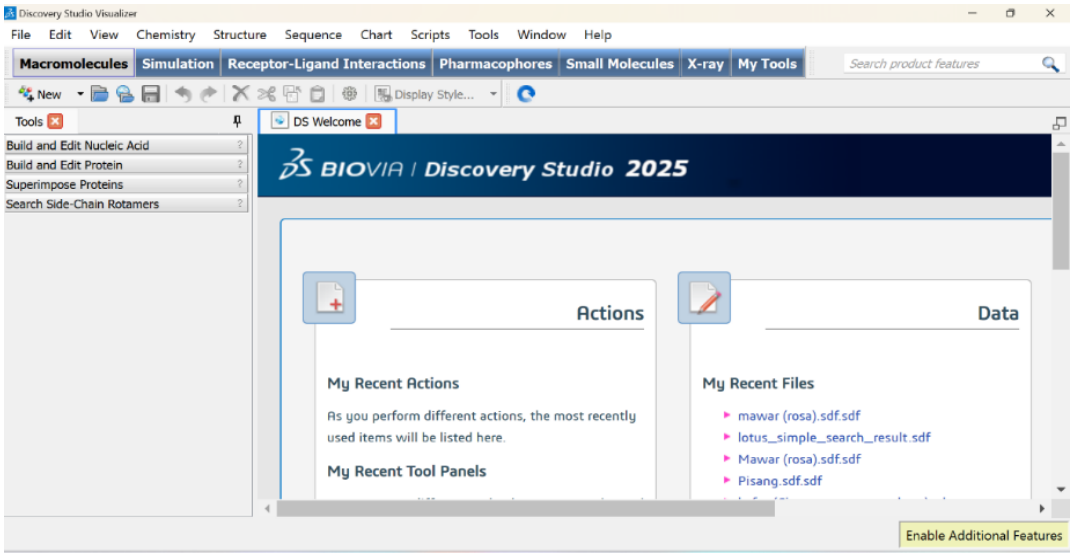
Lampiran 2. Perangkat Lunak YASARA-*structure*



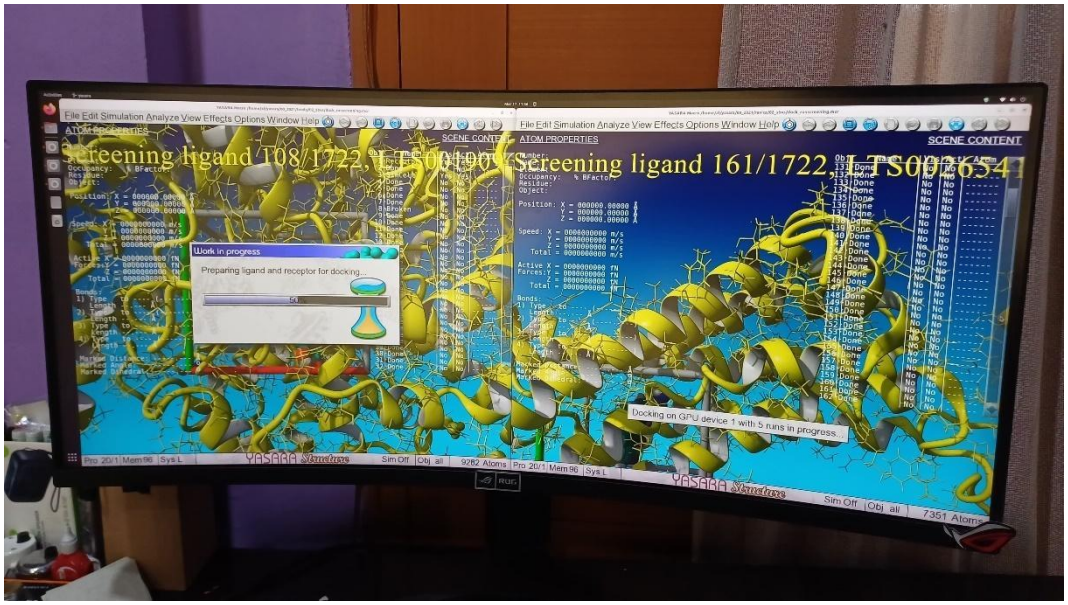
Lampiran 3. *Lotus Natural Product*



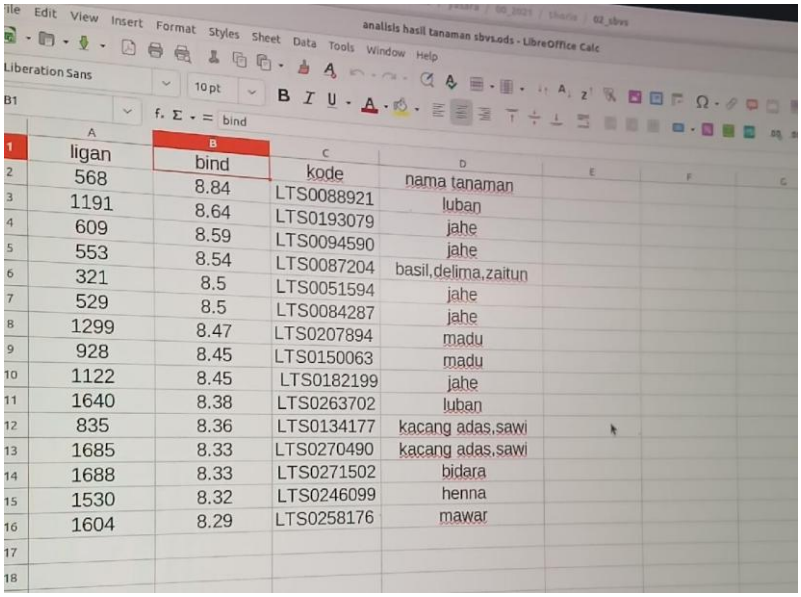
Lampiran 4. Perangkat Lunak *Discovery Studio*



Lampiran 5. Proses *Screening* senyawa tanaman

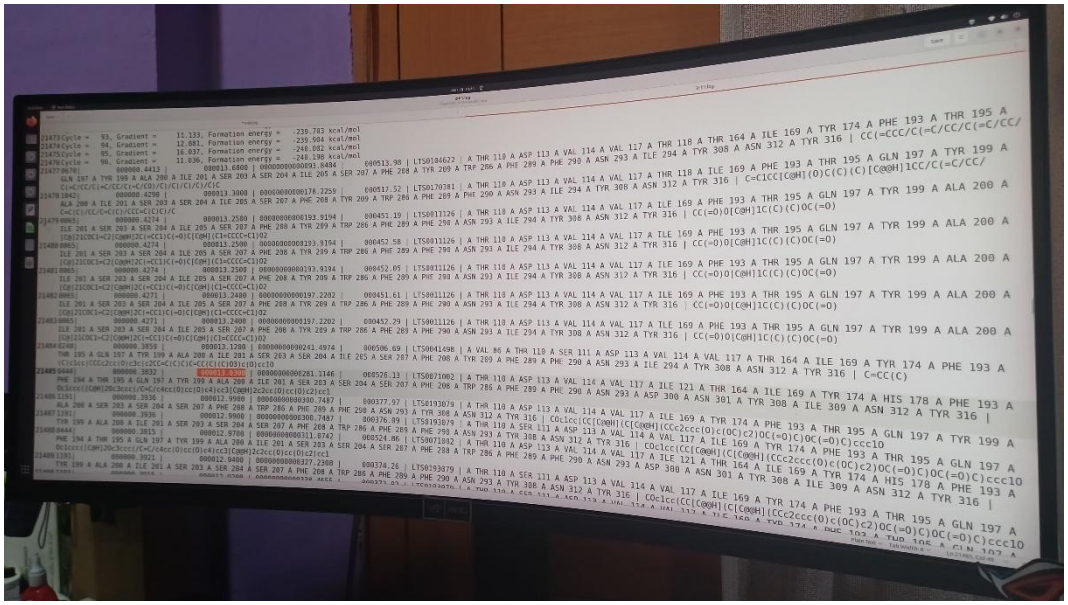


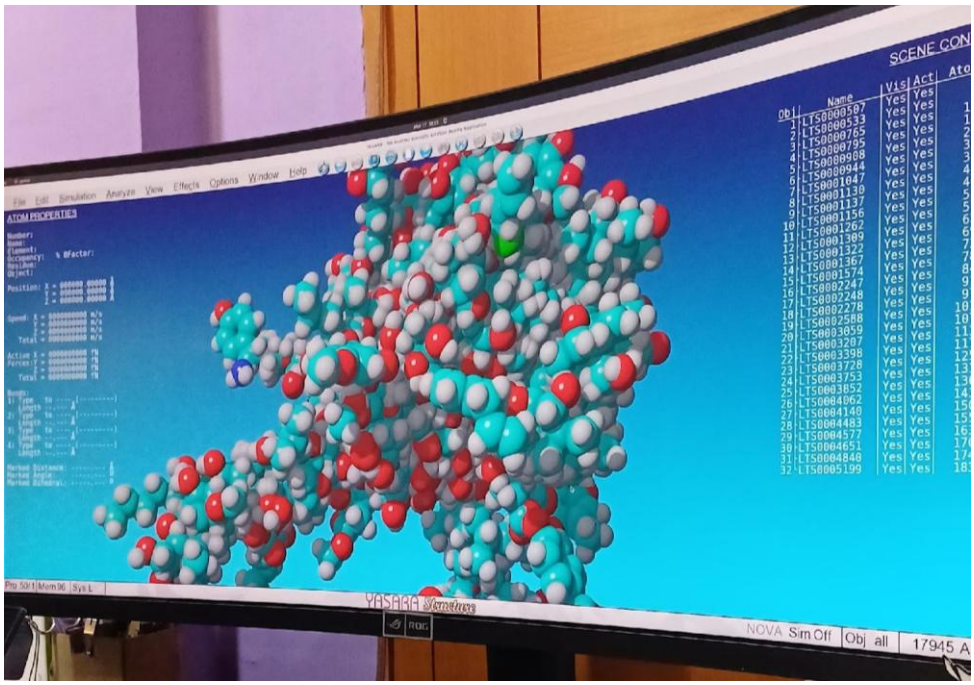
Lampiran 6. Analisis hasil tanaman sbvs



analisis hasil tanaman sbvs.ods - LibreOffice Calc

	A	B	C	D
1	ligan	bind	kode	nama tanaman
2	568	8.84	LTS0088921	luban
3	1191	8.64	LTS0193079	jahe
4	609	8.59	LTS0094590	jahe
5	553	8.54	LTS0087204	basil,delima,zaitun
6	321	8.5	LTS0051594	jahe
7	529	8.5	LTS0084287	jahe
8	1299	8.47	LTS0207894	madu
9	928	8.45	LTS0150063	madu
10	1122	8.45	LTS0182199	jahe
11	1640	8.38	LTS0263702	luban
12	835	8.36	LTS0134177	kacang adas,sawi
13	1685	8.33	LTS0270490	kacang adas,sawi
14	1688	8.33	LTS0271502	bidara
15	1530	8.32	LTS0246099	henna
16	1604	8.29	LTS0258176	mawar
17				
18				

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Name
Vis
Act
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LTS0000533
LTS0000765
LTS0000795
LTS0000908
LTS0000944
LTS0001047
LTS0001130
LTS0001137
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LTS0003753
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LTS0004140
LTS0004483
LTS0004577
LTS0004651
LTS0004840
LTS0005199
ATOM PROPERTIES
NOVA Sim Off
Obj all
17945 A

Lampiran 9. Hasil screening ligands

Ligand screening result

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1722 different ligands were docked with 5 runs each to the receptor object 1 yielding the following results, sorted by binding energy [more positive energies indicate stronger binding, and negative energies mean no binding].

"Effi" is the binding efficiency [binding energy per heavy atom], "Con.Surf" is the molecular contact surface. The best 5 poses of each ligand are reported.

Lig.|Effi[kcal/(mol*Atom)]|Bind.energy[kcal/mol]|Dissoc. constant [pM]| Con.Surf[A^2] | Name | Contacting receptor residues | SMILES

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Lampiran 10. Hasil nilai RMSD (*Root Mean Square Deviation)*

10.2733	2.2923	2.0173	1.7609	1.7151	0.8884	0.8339
7.5035	2.2913	2.0139	1.7576	1.7142	0.8799	0.833
7.4828	2.2904	2.0015	1.757	1.7139	0.8749	0.8329
7.4659	2.2873	2.0015	1.7558	1.7133	0.8739	0.8329
7.4425	2.2873	1.9944	1.7537	1.7124	0.8735	0.8328
7.3851	2.2838	1.9902	1.7515	1.7122	0.8633	0.8327
7.3536	2.2828	1.9882	1.7491	1.711	0.8622	0.8321
7.3522	2.2817	1.9882	1.7486	1.7084	0.8611	0.8318
7.3425	2.2814	1.9873	1.7471	1.7071	0.8593	0.8318
7.3377	2.2801	1.9862	1.7447	1.707	0.854	0.8315
7.2998	2.2794	1.9853	1.7436	1.7061	0.853	0.8315
7.2888	2.279	1.9824	1.7411	1.704	0.8523	0.8311
2.6339	2.2775	1.9798	1.7403	1.701	0.8495	0.8311
2.6227	2.277	1.9796	1.7394	1.6995	0.8485	0.8306
2.6147	2.2766	1.9792	1.7393	1.6965	0.8483	0.8305
2.6052	2.2764	1.9785	1.7384	1.6965	0.8437	0.8304
2.6014	2.2759	1.9779	1.7371	1.6891	0.8432	0.8304
2.5752	2.2718	1.9773	1.7366	1.6885	0.8426	0.8299
2.5642	2.2713	1.977	1.7362	1.6882	0.842	0.8299
2.5148	2.2705	1.9767	1.7357	1.6846	0.8413	0.8297
2.4214	2.2662	1.9765	1.7342	1.6827	0.8412	0.8295
2.3926	2.2628	1.9737	1.7328	1.6791	0.8412	0.8294
2.3851	2.2608	1.9732	1.7328	1.6758	0.8409	0.8287
2.384	2.2585	1.9715	1.7328	1.6723	0.8403	0.8285

2.3839	2.2575	1.9696	1.7316	1.6709	0.8398	0.8283
2.37	2.2565	1.9685	1.7315	1.6698	0.8392	0.8283
2.3675	2.2556	1.9671	1.7314	1.6662	0.8385	0.8281
2.363	2.2489	1.9651	1.7314	1.6629	0.8383	0.8275
2.3616	2.2472	1.9641	1.7312	1.6523	0.8381	0.8274
2.3534	2.2447	1.9575	1.7307	1.6459	0.8381	0.8272
2.3404	2.2417	1.9571	1.7295	1.6433	0.8373	0.8272
2.3338	2.2389	1.9453	1.7295	1.6187	0.8371	0.8269
2.3311	2.2325	1.9447	1.7294	1.6092	0.8368	0.8267
2.3266	2.2233	1.929	1.7294	1.2953	0.8366	0.8265
2.3233	2.2137	1.8772	1.7288	1.2561	0.8363	0.8265
2.3202	2.2086	1.8532	1.7262	1.1971	0.8363	0.8265
2.3174	2.2038	1.846	1.7255	1.1939	0.8351	0.8264
2.3035	2.2002	1.818	1.7216	1.1641	0.835	0.8263
2.3007	2.1545	1.7708	1.7169	1.0892	0.8343	0.8247
2.2959	2.0744	1.7654	1.716	1.0468	0.8343	0.8245
2.2947	2.0251	1.7654	1.7156	1.0209	0.834	0.8244
0.8244	0.8188	0.8129	0.8087	0.8046	0.8008	0.7981
0.8242	0.8188	0.8125	0.8086	0.8046	0.8007	0.7981
0.8241	0.8187	0.8124	0.8083	0.8045	0.8006	0.798
0.8241	0.8183	0.8123	0.808	0.8045	0.8006	0.7979
0.824	0.8179	0.8122	0.8079	0.8043	0.8006	0.7979
0.824	0.8179	0.812	0.8078	0.8041	0.8005	0.7977
0.8238	0.8179	0.8119	0.8078	0.8041	0.8004	0.7976
0.8237	0.8178	0.8116	0.8077	0.8041	0.8004	0.7975
0.8235	0.8176	0.8114	0.8077	0.8039	0.8003	0.7975
0.8234	0.8176	0.8113	0.8077	0.8038	0.8002	0.7975
0.8233	0.817	0.8113	0.8075	0.8038	0.8002	0.7974
0.8231	0.8169	0.8112	0.8075	0.8037	0.8002	0.7974
0.8227	0.8166	0.8111	0.8075	0.8036	0.8002	0.7973
0.8225	0.8166	0.8109	0.8075	0.8035	0.8001	0.7972
0.8225	0.8164	0.8105	0.8075	0.8035	0.8001	0.7972
0.8224	0.8162	0.8105	0.8073	0.8032	0.8	0.7971
0.8223	0.8162	0.8102	0.8072	0.8032	0.7999	0.7971
0.8221	0.8162	0.8101	0.8071	0.8032	0.7998	0.7971
0.8219	0.8159	0.81	0.807	0.8031	0.7998	0.7969
0.8217	0.8158	0.81	0.8069	0.803	0.7997	0.7967
0.8217	0.8158	0.8099	0.8069	0.8028	0.7997	0.7967
0.8216	0.8156	0.8099	0.8067	0.8027	0.7996	0.7967
0.8215	0.8155	0.8098	0.8067	0.8027	0.7996	0.7966
0.8214	0.8154	0.8098	0.8067	0.8027	0.7994	0.7965
0.8214	0.8153	0.8098	0.8067	0.8027	0.7993	0.7965
0.8212	0.8147	0.8098	0.8066	0.8026	0.7992	0.7965
0.821	0.8146	0.8098	0.8066	0.8026	0.7992	0.7964

0.8209	0.8144	0.8096	0.8065	0.8023	0.7992	0.7964
0.8208	0.8142	0.8096	0.8062	0.8022	0.7992	0.7964
0.8207	0.8142	0.8094	0.8061	0.802	0.7991	0.7963
0.8206	0.8142	0.8093	0.8061	0.802	0.7991	0.7962
0.8205	0.8141	0.8093	0.806	0.802	0.7989	0.7961
0.8205	0.814	0.8092	0.8059	0.8019	0.7988	0.796
0.8203	0.8139	0.8092	0.8058	0.8017	0.7988	0.7959
0.82	0.8138	0.8092	0.8057	0.8017	0.7988	0.7959
0.8198	0.8138	0.8091	0.8056	0.8016	0.7987	0.7959
0.8198	0.8138	0.809	0.8055	0.8016	0.7986	0.7959
0.8195	0.8135	0.809	0.8054	0.8015	0.7986	0.7958
0.8195	0.8135	0.8089	0.8053	0.8015	0.7985	0.7958
0.8194	0.8134	0.8089	0.8051	0.8013	0.7983	0.7958
0.819	0.8132	0.8088	0.805	0.8013	0.7983	0.7957
0.8189	0.8131	0.8088	0.805	0.8012	0.7982	0.7957
0.8189	0.813	0.8087	0.8049	0.8009	0.7982	0.7956
0.7956	0.7922	0.7885	0.7847	0.7841	0.7731	0.7663
0.7956	0.7921	0.7885	0.7847	0.7841	0.7731	0.7662
0.7955	0.7921	0.7884	0.7845	0.784	0.773	0.7658
0.7955	0.792	0.7884	0.7843	0.7838	0.773	0.7656
0.7952	0.792	0.7884	0.7843	0.7837	0.7727	0.7655
0.7952	0.7919	0.7884	0.7842	0.7837	0.7727	0.7653
0.7951	0.7918	0.7883	0.7842	0.7836	0.7723	0.7651
0.7951	0.7917	0.788	0.7841	0.7834	0.7721	0.7649
0.795	0.7917	0.7879	0.7841	0.7785	0.772	0.7649
0.795	0.7916	0.7879	0.784	0.7784	0.7714	0.7649
0.795	0.7916	0.7878	0.7838	0.7783	0.7713	0.7648
0.7949	0.7916	0.7877	0.7837	0.7781	0.771	0.7648
0.7949	0.7915	0.7876	0.7837	0.7778	0.771	0.7645
0.7949	0.7915	0.7876	0.7836	0.7776	0.7708	0.7645
0.7949	0.7914	0.7875	0.7834	0.7773	0.7707	0.7645
0.7948	0.7914	0.7874	0.7834	0.7773	0.7706	0.7642
0.7948	0.7914	0.7874	0.7833	0.7772	0.7705	0.7638
0.7947	0.7914	0.7873	0.7832	0.7772	0.7704	0.7638
0.7947	0.7911	0.7873	0.783	0.777	0.7701	0.7637
0.7945	0.7911	0.7872	0.7829	0.7769	0.7699	0.7636
0.7945	0.791	0.7871	0.7827	0.7769	0.7695	0.7636
0.7944	0.791	0.787	0.7826	0.7768	0.7692	0.7635
0.7944	0.7908	0.787	0.7826	0.7763	0.7691	0.763
0.7943	0.7907	0.7866	0.7824	0.7761	0.7686	0.763
0.7943	0.7905	0.7866	0.782	0.7758	0.7686	0.7628
0.7941	0.7904	0.7865	0.7819	0.7756	0.7686	0.7628
0.7941	0.7903	0.7864	0.7818	0.7756	0.7685	0.7628
0.7941	0.7903	0.7862	0.7818	0.7755	0.7684	0.7626

0.794	0.7902	0.7862	0.7817	0.7754	0.7684	0.7622
0.7939	0.7902	0.7862	0.7816	0.775	0.7684	0.762
0.7938	0.7901	0.7861	0.7815	0.7746	0.7683	0.7616
0.7936	0.79	0.786	0.7814	0.7746	0.7682	0.7616
0.7936	0.7898	0.7857	0.7813	0.7746	0.7682	0.7616
0.7936	0.7898	0.7856	0.781	0.7745	0.7682	0.7615
0.7935	0.7897	0.7855	0.7807	0.7745	0.7681	0.7614
0.7935	0.7896	0.7854	0.7806	0.7744	0.7677	0.7613
0.7933	0.7895	0.7854	0.7806	0.7743	0.7675	0.761
0.793	0.7894	0.7854	0.7806	0.7742	0.7673	0.7606
0.7925	0.7894	0.7853	0.7804	0.7739	0.7673	0.7602
0.7924	0.7894	0.7852	0.7802	0.7734	0.7671	0.76
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0.7923	0.7893	0.7849	0.7802	0.7732	0.7668	0.7597
0.7923	0.7887	0.7849	0.7802	0.7731	0.7665	0.7596
0.7594	0.7576	0.7551	0.7518	0.7421	0.7341	0.7064
0.7592	0.7575	0.7546	0.7514	0.742	0.7336	0.6982
0.7591	0.7573	0.7487	0.7491	0.7419	0.7331	0.6145
0.7588	0.7573	0.7544	0.7491	0.7409	0.7303	0.5748
0.7588	0.7572	0.7536	0.7487	0.7402	0.7288	0.5485
0.7587	0.7572	0.7533	0.7477	0.74	0.7283	0.5388
0.7585	0.757	0.753	0.7476	0.7395	0.7274	0.5116
0.7584	0.7569	0.7528	0.7473	0.7389	0.726	0.4812
0.7583	0.7567	0.7528	0.7461	0.7382	0.7251	
0.7582	0.7565	0.7526	0.7458	0.7361	0.7247	
0.7582	0.7544	0.7525	0.745	0.7361	0.72	
0.7581	0.756	0.7525	0.7447	0.7359	0.7077	
0.7578	0.7557	0.7521	0.7445	0.7342	0.7074	