

F value table

Deependra Dhakal

9/10/2019

Contents

df	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
1	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88	240.54	241.88	242.98	243.91	244.69	245.36	245.95	246.46	246.92	247.32	247.69	248.01	248.31	248.58	248.83	249.05	249.26	249.45	249.63	249.80	249.95	250.09	250.69	251.14	251.49	251.77	252.00
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.39	19.40	19.41	19.41	19.42	19.42	19.43	19.43	19.44	19.44	19.44	19.45	19.45	19.45	19.45	19.45	19.46	19.46	19.46	19.46	19.46	19.46	19.47	19.47	19.47	19.48	19.48
3	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81	8.79	8.76	8.74	8.73	8.71	8.70	8.69	8.68	8.68	8.67	8.66	8.65	8.65	8.64	8.64	8.63	8.63	8.63	8.62	8.62	8.62	8.60	8.59	8.59	8.58	8.58
4	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00	5.96	5.94	5.91	5.89	5.87	5.86	5.84	5.83	5.82	5.81	5.80	5.79	5.79	5.78	5.77	5.77	5.76	5.76	5.75	5.75	5.75	5.73	5.72	5.71	5.70	5.69
5	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77	4.74	4.70	4.68	4.66	4.64	4.62	4.60	4.59	4.58	4.57	4.56	4.55	4.54	4.53	4.53	4.52	4.51	4.51	4.50	4.50	4.50	4.48	4.46	4.45	4.44	4.44
6	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10	4.06	4.03	4.00	3.98	3.96	3.94	3.92	3.91	3.90	3.88	3.87	3.87	3.86	3.85	3.84	3.83	3.83	3.82	3.82	3.81	3.81	3.79	3.77	3.76	3.75	3.75
7	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68	3.64	3.60	3.58	3.55	3.53	3.51	3.49	3.48	3.47	3.46	3.44	3.44	3.43	3.42	3.41	3.40	3.40	3.39	3.39	3.38	3.38	3.36	3.34	3.33	3.32	3.31
8	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39	3.35	3.31	3.28	3.26	3.24	3.22	3.20	3.19	3.17	3.16	3.15	3.14	3.13	3.12	3.12	3.11	3.10	3.10	3.09	3.08	3.08	3.06	3.04	3.03	3.02	3.01
9	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18	3.14	3.10	3.07	3.05	3.02	3.01	2.99	2.97	2.96	2.95	2.94	2.93	2.92	2.91	2.90	2.89	2.89	2.88	2.87	2.87	2.86	2.84	2.83	2.81	2.80	2.79
10	4.96	4.10	3.71	3.48	3.33	3.22	3.13	3.07	3.02	2.98	2.94	2.91	2.89	2.87	2.85	2.83	2.81	2.80	2.79	2.77	2.76	2.75	2.75	2.74	2.73	2.72	2.72	2.71	2.71	2.70	2.68	2.66	2.65	2.64	2.63
11	4.84	3.98	3.59	3.36	3.20	3.10	3.01	2.95	2.90	2.85	2.82	2.79	2.76	2.74	2.72	2.70	2.69	2.67	2.66	2.65	2.64	2.63	2.62	2.61	2.60	2.59	2.59	2.58	2.58	2.57	2.55	2.53	2.52	2.51	2.50
12	4.75	3.88	3.49	3.26	3.11	3.00	2.91	2.85	2.80	2.75	2.72	2.69	2.66	2.64	2.62	2.60	2.58	2.57	2.56	2.54	2.53	2.52	2.51	2.50	2.50	2.49	2.48	2.48	2.47	2.47	2.44	2.43	2.41	2.40	2.39
13	4.67	3.81	3.41	3.18	3.02	2.92	2.83	2.77	2.71	2.67	2.63	2.60	2.58	2.55	2.53	2.52	2.50	2.48	2.47	2.46	2.45	2.44	2.43	2.42	2.41	2.40	2.40	2.39	2.39	2.38	2.36	2.34	2.33	2.31	2.30
14	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65	2.60	2.56	2.53	2.51	2.48	2.46	2.44	2.43	2.41	2.40	2.39	2.38	2.37	2.36	2.35	2.34	2.33	2.33	2.32	2.31	2.31	2.28	2.27	2.25	2.24	2.23
15	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59	2.54	2.51	2.48	2.45	2.42	2.40	2.38	2.37	2.35	2.34	2.33	2.32	2.31	2.30	2.29	2.28	2.27	2.27	2.26	2.25	2.25	2.22	2.20	2.19	2.18	2.17
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	2.49	2.46	2.42	2.40	2.37	2.35	2.33	2.32	2.30	2.29	2.28	2.26	2.25	2.24	2.23	2.23	2.22	2.21	2.21	2.20	2.19	2.17	2.15	2.14	2.12	2.11
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49	2.45	2.41	2.38	2.35	2.33	2.31	2.29	2.27	2.26	2.24	2.23	2.22	2.21	2.20	2.19	2.18	2.17	2.17	2.16	2.15	2.15	2.12	2.10	2.09	2.08	2.07
18	4.41	3.56	3.16	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.37	2.34	2.31	2.29	2.27	2.25	2.23	2.22	2.20	2.19	2.18	2.17	2.16	2.15	2.14	2.13	2.12	2.11	2.11	2.08	2.06	2.05	2.04	2.02	
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42	2.38	2.34	2.31	2.28	2.26	2.23	2.21	2.20	2.18	2.17	2.15	2.14	2.13	2.12	2.11	2.11	2.10	2.09	2.08	2.08	2.07	2.05	2.03	2.01	2.00	1.99
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39	2.35	2.31	2.28	2.25	2.23	2.20	2.18	2.17	2.15	2.14	2.12	2.11	2.10	2.09	2.08	2.07	2.07	2.06	2.05	2.04	2.04	2.01	1.99	1.98	1.97	1.96
21	4.33	3.47	3.07	2.84	2.69	2.57	2.49	2.42	2.37	2.32	2.28	2.25	2.22	2.20	2.18	2.16	2.14	2.12	2.11	2.10	2.08	2.07	2.06	2.05	2.04	2.04	2.03	2.02	2.02	2.01	1.98	1.97	1.95	1.94	1.93
22	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34	2.30	2.26	2.23	2.20	2.17	2.15	2.13	2.11	2.10	2.08	2.07	2.06	2.05	2.04	2.03	2.02	2.01	2.00	2.00	1.99	1.98	1.96	1.94	1.92	1.91	1.90
23	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.38	2.32	2.27	2.24	2.20	2.17	2.15	2.13	2.11	2.09	2.08	2.06	2.05	2.04	2.02	2.01	2.00	2.00	1.99	1.98	1.97	1.97	1.96	1.93	1.91	1.90	1.89	1.87
24	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.35	2.30	2.25	2.22	2.18	2.15	2.13	2.11	2.09	2.07	2.05	2.04	2.03	2.02	2.00	1.99	1.98	1.98	1.97	1.96	1.95	1.95	1.94	1.91	1.89	1.88	1.86	1.85
25	4.24	3.38	2.99	2.76	2.60	2.49	2.40	2.34	2.28	2.24	2.20	2.17	2.14	2.11	2.09	2.07	2.05	2.04	2.02	2.01	2.00	1.98	1.97	1.96	1.96	1.95	1.94	1.93	1.93	1.92	1.89	1.87	1.85	1.84	1.83
26	4.22	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	2.22	2.18	2.15	2.12	2.09	2.07	2.05	2.03	2.02	2.00	1.99	1.98	1.97	1.96	1.95	1.94	1.93	1.92	1.91	1.91	1.90	1.87	1.85	1.84	1.82	1.81
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25	2.20	2.17	2.13	2.10	2.08	2.06	2.04	2.02	2.00	1.99	1.97	1.96	1.95	1.94	1.93	1.92	1.91	1.91	1.90	1.89	1.88	1.86	1.84	1.82	1.81	1.79
28	4.20	3.34	2.95	2.71	2.56	2.44	2.36	2.29	2.24	2.19	2.15	2.12	2.09	2.06	2.04	2.02	2.00	1.99	1.97	1.96	1.95	1.94	1.92	1.92	1.91	1.90	1.89	1.88	1.88	1.87	1.84	1.82	1.80	1.79	1.78
29	4.18	3.33	2.93	2.70	2.54	2.43	2.35	2.28	2.22	2.18	2.14	2.10	2.08	2.05	2.03	2.01	1.99	1.97	1.96	1.95	1.93	1.92	1.91	1.90	1.89	1.88	1.88	1.87	1.86	1.85	1.83	1.81	1.79	1.77	1.76
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21	2.17	2.13	2.09	2.06	2.04	2.02	2.00	1.98	1.96	1.95	1.93	1.92	1.91	1.90	1.89	1.88	1.87	1.86	1.85	1.85	1.84	1.81	1.79	1.77	1.76	1.75
31	4.12	3.27	2.87	2.64	2.48	2.37	2.29	2.22	2.16	2.11	2.08	2.04	2.01	1.99	1.96	1.94	1.92	1.91	1.89	1.88	1.87	1.85	1.84	1.83	1.82	1.81	1.81	1.80	1.79	1.79	1.76	1.74	1.72	1.70	1.69
32	4.08	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12	2.08	2.04	2.00	1.97	1.95	1.92	1.90	1.89	1.87	1.85	1.84	1.83	1.81	1.80	1.79	1.78	1.77	1.77	1.76	1.75	1.74	1.72	1.69	1.68	1.66	1.65
33	4.06	3.20	2.81	2.58	2.42	2.31	2.22	2.15	2.10	2.05	2.01	1.97	1.95	1.92	1.90	1.87	1.85	1.84	1.82	1.81	1.79	1.78	1.77	1.76	1.75	1.74	1.74	1.73	1.72	1.71	1.68	1.66	1.64	1.63	1.61
34	4.03	3.18	2.79	2.56	2.40	2.29	2.20	2.13	2.07	2.03	1.99	1.95	1.92	1.90	1.87	1.85	1.83	1.81	1.80	1.78	1.77	1.76	1.75	1.74	1.73	1.72	1.71	1.70	1.69	1.69	1.66	1.63	1.61	1.60	1.59
35	4.02	3.17	2.77	2.54	2.38	2.27	2.18	2.11	2.06	2.01	1.97	1.93	1.90	1.88	1.85	1.83	1.81	1.79	1.78	1.76	1.75	1.74	1.73	1.72	1.71	1.70	1.69	1.68	1.67	1.67	1.64	1.61	1.59	1.58	1.56
36	4.00	3.15	2.76	2.52	2.37	2.25	2.17	2.10	2.04	1.99	1.95	1.92	1.89	1.86	1.84	1.81	1.80	1.78	1.76	1.75	1.74	1.72	1.71	1.70	1.69	1.68	1.67	1.66	1.66	1.65	1.62	1.59	1.57	1.56	1.55
37	3.99	3.14	2.75	2.51	2.36	2.24	2.15	2.08	2.03	1.98	1.94	1.90	1.87	1.85	1.82	1.80	1.78	1.76	1.75	1.73	1.72	1.71	1.70	1.69	1.68	1.67	1.66	1.65	1.64	1.64	1.60				

df	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
1	1.000	1.500	1.709	1.823	1.894	1.942	1.977	2.004	2.025	2.042	2.056	2.067	2.077	2.086	2.093	2.100	2.105	2.110	2.115	2.119	2.123	2.126	2.129	2.132	2.135	2.137	2.139	2.141	2.143	2.145	2.153	2.158	2.163	2.166	2.169	2.172	2.174	2.175	2.177	2.178	2.179	2.180
2	0.667	1.000	1.135	1.207	1.252	1.282	1.305	1.321	1.334	1.345	1.354	1.361	1.367	1.372	1.377	1.381	1.385	1.388	1.391	1.393	1.396	1.398	1.400	1.401	1.403	1.405	1.406	1.407	1.408	1.410	1.414	1.418	1.421	1.423	1.425	1.426	1.427	1.428	1.429	1.430	1.431	1.432
3	0.585	0.881	1.000	1.063	1.102	1.129	1.148	1.163	1.174	1.183	1.191	1.197	1.203	1.207	1.211	1.215	1.218	1.220	1.223	1.225	1.227	1.229	1.231	1.232	1.234	1.235	1.236	1.237	1.238	1.239	1.243	1.246	1.249	1.251	1.252	1.254	1.255	1.256	1.256	1.257	1.258	1.259
4	0.549	0.828	0.941	1.000	1.037	1.062	1.080	1.093	1.104	1.113	1.120	1.126	1.131	1.135	1.139	1.142	1.145	1.147	1.150	1.152	1.154	1.155	1.157	1.158	1.160	1.161	1.162	1.163	1.164	1.165	1.169	1.172	1.174	1.176	1.177	1.178	1.179	1.180	1.181	1.182	1.182	1.183
5	0.528	0.799	0.907	0.965	1.000	1.024	1.041	1.055	1.065	1.073	1.080	1.085	1.090	1.094	1.098	1.101	1.104	1.106	1.109	1.111	1.112	1.114	1.116	1.117	1.118	1.119	1.121	1.122	1.122	1.123	1.127	1.130	1.132	1.134	1.135	1.136	1.137	1.138	1.139	1.139	1.140	1.141
6	0.515	0.780	0.886	0.942	0.977	1.000	1.017	1.030	1.040	1.048	1.054	1.060	1.065	1.069	1.072	1.075	1.078	1.080	1.083	1.084	1.086	1.088	1.089	1.091	1.092	1.093	1.094	1.095	1.096	1.097	1.100	1.103	1.105	1.107	1.108	1.109	1.110	1.111	1.112	1.112	1.113	1.114
7	0.506	0.767	0.871	0.926	0.960	0.983	1.000	1.013	1.022	1.030	1.037	1.042	1.047	1.051	1.054	1.057	1.060	1.062	1.064	1.066	1.068	1.070	1.071	1.072	1.074	1.075	1.076	1.077	1.078	1.079	1.082	1.085	1.087	1.088	1.090	1.091	1.092	1.093	1.093	1.094	1.094	1.095
8	0.499	0.757	0.860	0.915	0.948	0.971	0.988	1.000	1.010	1.018	1.024	1.029	1.034	1.038	1.041	1.044	1.047	1.049	1.051	1.053	1.055	1.056	1.058	1.059	1.060	1.061	1.062	1.063	1.064	1.065	1.069	1.071	1.073	1.075	1.076	1.077	1.078	1.079	1.080	1.080	1.081	1.081
9	0.494	0.749	0.852	0.906	0.939	0.962	0.978	0.990	1.000	1.008	1.014	1.019	1.024	1.028	1.031	1.034	1.037	1.039	1.041	1.043	1.045	1.046	1.048	1.049	1.050	1.051	1.052	1.053	1.054	1.055	1.058	1.061	1.063	1.064	1.066	1.067	1.068	1.068	1.069	1.070	1.070	1.071
10	0.490	0.743	0.845	0.899	0.932	0.954	0.971	0.983	0.992	1.000	1.006	1.012	1.016	1.020	1.023	1.026	1.029	1.031	1.033	1.035	1.037	1.038	1.040	1.041	1.042	1.043	1.044	1.045	1.046	1.047	1.050	1.053	1.055	1.056	1.057	1.059	1.059	1.060	1.061	1.062	1.062	1.063
11	0.486	0.739	0.840	0.893	0.926	0.948	0.964	0.977	0.986	0.994	1.000	1.005	1.010	1.013	1.017	1.020	1.022	1.025	1.027	1.028	1.030	1.032	1.033	1.034	1.035	1.037	1.038	1.038	1.039	1.040	1.043	1.046	1.048	1.050	1.051	1.052	1.053	1.054	1.054	1.055	1.055	1.056
12	0.484	0.735	0.835	0.888	0.921	0.943	0.959	0.972	0.981	0.989	0.995	1.000	1.004	1.008	1.012	1.014	1.017	1.019	1.021	1.023	1.025	1.026	1.028	1.029	1.030	1.031	1.032	1.033	1.034	1.035	1.038	1.041	1.042	1.044	1.045	1.046	1.047	1.048	1.049	1.049	1.050	1.050
13	0.481	0.731	0.832	0.885	0.917	0.939	0.955	0.967	0.977	0.984	0.990	0.996	1.000	1.004	1.007	1.010	1.012	1.015	1.017	1.019	1.020	1.022	1.023	1.024	1.026	1.027	1.028	1.028	1.029	1.030	1.033	1.036	1.038	1.039	1.041	1.042	1.043	1.043	1.044	1.045	1.045	1.046
14	0.479	0.729	0.828	0.881	0.914	0.936	0.952	0.964	0.973	0.981	0.987	0.992	0.996	1.000	1.003	1.006	1.009	1.011	1.013	1.015	1.016	1.018	1.019	1.020	1.022	1.023	1.024	1.025	1.025	1.026	1.030	1.032	1.034	1.036	1.037	1.038	1.039	1.040	1.040	1.041	1.041	1.042
15	0.478	0.726	0.826	0.878	0.911	0.933	0.949	0.960	0.970	0.977	0.983	0.989	0.993	0.997	1.000	1.003	1.005	1.008	1.010	1.011	1.013	1.015	1.016	1.017	1.018	1.019	1.020	1.021	1.022	1.023	1.026	1.029	1.031	1.032	1.033	1.034	1.035	1.036	1.037	1.037	1.038	1.038
16	0.476	0.724	0.823	0.876	0.908	0.930	0.946	0.958	0.967	0.975	0.981	0.986	0.990	0.994	0.997	1.000	1.003	1.005	1.007	1.009	1.010	1.012	1.013	1.014	1.015	1.016	1.017	1.018	1.019	1.020	1.023	1.026	1.028	1.029	1.030	1.032	1.032	1.033	1.034	1.034	1.035	1.035
17	0.475	0.722	0.821	0.874	0.906	0.928	0.943	0.955	0.965	0.972	0.978	0.983	0.988	0.991	0.995	0.997	1.000	1.002	1.004	1.006	1.008	1.009	1.010	1.012	1.013	1.014	1.015	1.016	1.017	1.017	1.021	1.023	1.025	1.027	1.028	1.029	1.030	1.031	1.031	1.032	1.032	1.033
18	0.474	0.721	0.819	0.872	0.904	0.926	0.941	0.953	0.962	0.970	0.976	0.981	0.985	0.989	0.992	0.995	0.998	1.000	1.002	1.004	1.005	1.007	1.008	1.009	1.011	1.012	1.013	1.014	1.014	1.015	1.018	1.021	1.023	1.024	1.026	1.027	1.028	1.028	1.029	1.030	1.030	1.031
19	0.473	0.719	0.818	0.870	0.902	0.924	0.939	0.951	0.961	0.968	0.974	0.979	0.984	0.987	0.990	0.993	0.996	0.998	1.000	1.002	1.003	1.005	1.006	1.007	1.009	1.010	1.011	1.012	1.012	1.013	1.016	1.019	1.021	1.022	1.024	1.025	1.025	1.026	1.027	1.027	1.028	1.028
20	0.472	0.718	0.816	0.868	0.900	0.922	0.938	0.950	0.959	0.966	0.972	0.977	0.982	0.985	0.989	0.992	0.994	0.996	0.998	1.000	1.002	1.003	1.004	1.006	1.007	1.008	1.009	1.010	1.011	1.011	1.015	1.017	1.019	1.020	1.022	1.023	1.024	1.024	1.025	1.026	1.026	1.027
21	0.471	0.717	0.815	0.867	0.899	0.921	0.936	0.948	0.957	0.965	0.971	0.976	0.980	0.984	0.987	0.990	0.992	0.995	0.997	0.998	1.000	1.001	1.003	1.004	1.005	1.006	1.007	1.008	1.009	1.010	1.013	1.015	1.017	1.019	1.020	1.021	1.022	1.023	1.023	1.024	1.024	1.025
22	0.470	0.715	0.814	0.866	0.898	0.919	0.935	0.947	0.956	0.963	0.969	0.974	0.979	0.982	0.986	0.988	0.991	0.993	0.995	0.997	0.999	1.000	1.001	1.003	1.004	1.005	1.006	1.007	1.007	1.008	1.011	1.014	1.016	1.017	1.019	1.020	1.021	1.021	1.022	1.022	1.023	1.023
23	0.470	0.714	0.813	0.864	0.896	0.918	0.934	0.945	0.955	0.962	0.968	0.973	0.977	0.981	0.984	0.987	0.990	0.992	0.994	0.996	0.997	0.999	1.000	1.001	1.002	1.003	1.004	1.005	1.006	1.007	1.010	1.013	1.014	1.016	1.017	1.018	1.019	1.020	1.021	1.021	1.022	1.022
24	0.469	0.714	0.812	0.863	0.895	0.917	0.932	0.944	0.953	0.961	0.967	0.972	0.976	0.980	0.983	0.986	0.988	0.991	0.993	0.994	0.996	0.997	0.999	1.000	1.001	1.002	1.003	1.004	1.005	1.006	1.009	1.011	1.013	1.015	1.016	1.017	1.018	1.019	1.019	1.020	1.020	1.021
25	0.468	0.713	0.811	0.862	0.894	0.916	0.931	0.943	0.952	0.960	0.966	0.971	0.975	0.979	0.982	0.985	0.987	0.989	0.991	0.993	0.995	0.996	0.998	0.999	1.000	1.001	1.002	1.003	1.004	1.005	1.008	1.010	1.012	1.014	1.015	1.016	1.017	1.017	1.018	1.019	1.019	1.020
26	0.468	0.712	0.810	0.861	0.893	0.915	0.930	0.942	0.951	0.959	0.965	0.970	0.974	0.978	0.981	0.984	0.986	0.988	0.990	0.992	0.994	0.995	0.997	0.998	0.999	1.000	1.001	1.002	1.003	1.003	1.007	1.009	1.011	1.013	1.014	1.015	1.016	1.016	1.017	1.018	1.018	1.019
27	0.467	0.711	0.809	0.861	0.892	0.914	0.930	0.941	0.950	0.958	0.964	0.969	0.973	0.977	0.980	0.983	0.985	0.988	0.989	0.991	0.993	0.994	0.996	0.997	0.998	0.999	1.000	1.001	1.002	1.003	1.006	1.008	1.010	1.012	1.013	1.014	1.015	1.015	1.016	1.017	1.017	1.018
28	0.467	0.711	0.808	0.860	0.892	0.913	0.929	0.940	0.950	0.957	0.963	0.968	0.972	0.976	0.979	0.982	0.984	0.987	0.989	0.990	0.992	0.993	0.995	0.996	0.997	0.998	0.999	1.000	1.001	1.002	1.005	1.007	1.009	1.011	1.012	1.013	1.014	1.015	1.015	1.016	1.016	1.017
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