

F-Verteilung für alpha = 0,05 (= „.... signifikant“)

Formel in LO-CALC:  
=1/F.INV(0,05;fB;fA)

		Freiheitsgrad f <sub>A</sub> (Stichprobe mit der größeren Varianz)																																					
		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	40	50	100	500	1000	
Freiheitsgrad f <sub>B</sub> (Stichprobe mit der kleineren Varianz)	1	161,4	199,5	215,7	224,6	230,2	234,0	236,8	238,9	240,5	241,9	243,0	243,9	244,7	245,4	245,9	246,5	246,9	247,3	247,7	248,0	248,3	248,6	248,8	249,1	249,3	249,5	249,6	249,8	250,0	250,1	250,2	250,4	251,1	251,8	253,0	254,1	254,2	
	2	18,51	19,00	19,16	19,25	19,30	19,33	19,35	19,37	19,38	19,40	19,40	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	19,45	19,46	19,46	19,46	19,46	19,46	19,46	19,46	19,46	19,47	19,48	19,49	19,49	19,49
	3	10,13	9,550	9,280	9,120	9,010	8,940	8,890	8,850	8,810	8,790	8,760	8,740	8,730	8,710	8,700	8,690	8,680	8,670	8,670	8,660	8,650	8,650	8,640	8,640	8,630	8,630	8,630	8,620	8,620	8,620	8,610	8,610	8,590	8,580	8,550	8,530	8,530	
	4	7,709	6,944	6,591	6,388	6,256	6,163	6,094	6,041	5,999	5,964	5,936	5,912	5,891	5,873	5,858	5,844	5,832	5,821	5,811	5,803	5,795	5,787	5,781	5,774	5,769	5,763	5,759	5,754	5,750	5,746	5,742	5,739	5,717	5,699	5,664	5,635	5,632	
	5	6,608	5,786	5,409	5,192	5,050	4,950	4,876	4,818	4,772	4,735	4,704	4,678	4,655	4,636	4,619	4,604	4,590	4,579	4,568	4,558	4,549	4,541	4,534	4,527	4,521	4,515	4,510	4,505	4,500	4,496	4,492	4,488	4,464	4,444	4,405	4,373	4,369	
	6	5,987	5,143	4,757	4,534	4,387	4,284	4,207	4,147	4,099	4,060	4,027	4,000	3,976	3,956	3,938	3,922	3,908	3,896	3,884	3,874	3,865	3,856	3,849	3,841	3,835	3,829	3,823	3,818	3,813	3,808	3,804	3,800	3,774	3,754	3,712	3,678	3,673	
	7	5,591	4,737	4,347	4,120	3,972	3,866	3,787	3,726	3,677	3,637	3,603	3,575	3,550	3,529	3,511	3,494	3,480	3,467	3,455	3,445	3,435	3,426	3,418	3,410	3,404	3,397	3,391	3,386	3,381	3,376	3,371	3,367	3,340	3,319	3,275	3,239	3,234	
	8	5,318	4,459	4,066	3,838	3,687	3,581	3,500	3,438	3,388	3,347	3,313	3,284	3,259	3,237	3,218	3,202	3,187	3,173	3,161	3,150	3,140	3,131	3,123	3,115	3,108	3,102	3,095	3,090	3,084	3,079	3,075	3,070	3,043	3,020	2,975	2,937	2,932	
	9	5,117	4,256	3,863	3,633	3,482	3,374	3,293	3,230	3,179	3,137	3,102	3,073	3,048	3,025	3,006	2,989	2,974	2,960	2,948	2,936	2,926	2,917	2,908	2,900	2,893	2,886	2,880	2,874	2,869	2,864	2,859	2,854	2,826	2,803	2,756	2,717	2,712	
	10	4,965	4,103	3,708	3,478	3,326	3,217	3,135	3,072	3,020	2,978	2,943	2,913	2,887	2,865	2,845	2,828	2,812	2,798	2,785	2,774	2,764	2,754	2,745	2,737	2,730	2,723	2,716	2,710	2,705	2,700	2,695	2,690	2,661	2,637	2,588	2,548	2,543	
	11	4,844	3,982	3,587	3,357	3,204	3,095	3,012	2,948	2,896	2,854	2,818	2,788	2,761	2,739	2,719	2,701	2,685	2,671	2,658	2,646	2,636	2,626	2,617	2,609	2,601	2,594	2,588	2,582	2,576	2,570	2,565	2,561	2,531	2,507	2,457	2,415	2,410	
	12	4,747	3,885	3,490	3,259	3,106	2,996	2,913	2,849	2,796	2,753	2,717	2,687	2,660	2,637	2,617	2,599	2,583	2,568	2,555	2,544	2,533	2,523	2,514	2,505	2,498	2,491	2,484	2,478	2,472	2,466	2,461	2,456	2,426	2,401	2,350	2,307	2,302	
	13	4,667	3,806	3,411	3,179	3,025	2,915	2,832	2,767	2,714	2,671	2,635	2,604	2,577	2,554	2,533	2,515	2,499	2,484	2,471	2,459	2,448	2,438	2,429	2,420	2,412	2,405	2,398	2,392	2,386	2,380	2,375	2,370	2,339	2,314	2,261	2,218	2,212	
	14	4,600	3,739	3,344	3,112	2,958	2,848	2,764	2,699	2,646	2,602	2,565	2,534	2,507	2,484	2,463	2,445	2,428	2,413	2,400	2,388	2,377	2,367	2,357	2,349	2,341	2,333	2,326	2,320	2,314	2,308	2,303	2,298	2,266	2,241	2,187	2,142	2,136	
	15	4,543	3,682	3,287	3,056	2,901	2,790	2,707	2,641	2,588	2,544	2,507	2,475	2,448	2,424	2,403	2,385	2,368	2,353	2,340	2,328	2,316	2,306	2,297	2,288	2,280	2,272	2,265	2,259	2,253	2,247	2,241	2,236	2,204	2,178	2,123	2,078	2,072	
	16	4,494	3,634	3,239	3,007	2,852	2,741	2,657	2,591	2,538	2,494	2,456	2,425	2,397	2,373	2,352	2,333	2,317	2,302	2,288	2,276	2,264	2,254	2,244	2,235	2,227	2,220	2,212	2,206	2,200	2,194	2,188	2,183	2,151	2,124	2,068	2,022	2,016	
	17	4,451	3,592	3,197	2,965	2,810	2,699	2,614	2,548	2,494	2,450	2,411	2,381	2,353	2,329	2,308	2,289	2,272	2,257	2,243	2,230	2,219	2,208	2,199	2,190	2,181	2,174	2,167	2,160	2,154	2,148	2,142	2,137	2,104	2,077	2,020	1,973	1,967	
	18	4,414	3,555	3,160	2,928	2,773	2,661	2,575	2,510	2,456	2,412	2,374	2,342	2,314	2,290	2,269	2,250	2,233	2,217	2,203	2,191	2,179	2,168	2,159	2,150	2,141	2,134	2,126	2,119	2,113	2,107	2,102	2,096	2,063	2,035	1,978	1,929	1,923	
	19	4,381	3,522	3,127	2,895	2,740	2,628	2,544	2,477	2,423	2,378	2,340	2,308	2,280	2,256	2,234	2,215	2,198	2,182	2,168	2,155	2,144	2,133	2,123	2,114	2,106	2,098	2,090	2,084	2,077	2,071	2,066	2,060	2,026	1,999	1,940	1,891	1,884	
	20	4,351	3,493	3,098	2,866	2,711	2,599	2,514	2,447	2,393	2,348	2,310	2,278	2,250	2,225	2,203	2,184	2,167	2,151	2,137	2,124	2,112	2,102	2,092	2,082	2,074	2,066	2,059	2,052	2,045	2,039	2,033	2,028	1,994	1,966	1,907	1,856	1,850	
	21	4,325	3,467	3,072	2,840	2,685	2,573	2,488	2,420	2,366	2,321	2,283	2,250	2,222	2,197	2,176	2,156	2,139	2,123	2,109	2,096	2,084	2,073	2,063	2,054	2,045	2,037	2,030	2,023	2,016	2,010	2,004	1,999	1,965	1,936	1,876	1,825	1,818	
	22	4,301	3,443	3,049	2,817	2,661	2,549	2,464	2,397	2,342	2,297	2,259	2,226	2,198	2,173	2,151	2,131	2,114	2,098	2,084	2,071	2,059	2,048	2,038	2,028	2,020	2,012	2,004	1,997	1,990	1,984	1,978	1,973	1,938	1,909	1,849	1,797	1,790	
	23	4,279	3,422	3,028	2,796	2,640	2,528	2,442	2,375	2,320	2,275	2,236	2,204	2,175	2,150	2,128	2,109	2,091	2,075	2,061	2,048	2,036	2,025	2,014	2,005	1,996	1,988	1,981	1,973	1,967	1,961	1,955	1,949	1,914	1,885	1,823	1,771	1,764	
	24	4,260	3,403	3,009	2,776	2,621	2,508	2,423	2,355	2,300	2,255	2,216	2,183	2,155	2,130	2,108	2,088	2,070	2,054	2,040	2,027	2,015	2,003	1,993	1,984	1,975	1,967	1,959	1,952	1,945	1,939	1,933	1,927	1,892	1,863	1,800	1,747	1,740	
	25	4,242	3,385	2,991	2,759	2,603	2,490	2,405	2,337	2,282	2,236	2,198	2,165	2,136	2,111	2,089	2,069	2,051	2,035	2,021	2,007	1,995	1,984	1,974	1,964	1,955	1,947	1,939	1,932	1,926	1,919	1,913	1,908	1,872	1,842	1,779	1,725	1,718	
	26	4,225	3,369	2,975	2,743	2,587	2,474	2,388	2,321	2,265	2,220	2,181	2,148	2,119	2,094	2,072	2,052	2,034	2,018	2,003	1,990	1,978	1,966	1,956	1,946	1,938	1,929	1,921	1,914	1,907	1,901	1,895	1,889	1,853	1,823	1,760	1,705	1,698	
	27	4,210	3,354	2,960	2,728	2,572	2,459	2,373	2,305	2,250	2,204	2,166	2,132	2,103	2,078	2,056	2,036	2,018	2,002	1,987	1,974	1,961	1,950	1,940	1,930	1,921	1,913	1,905	1,898	1,891	1,884	1,878	1,872	1,836	1,806	1,742	1,686	1,679	
	28	4,196	3,340	2,947	2,714	2,558	2,445	2,359	2,291	2,236	2,190	2,151	2,118	2,089	2,064	2,041	2,021	2,003	1,987	1,972	1,959	1,946	1,935	1,924	1,915	1,906	1,897	1,889	1,882	1,875	1,869	1,863	1,857	1,820	1,790	1,725	1,669	1,662	
	29	4,183	3,328	2,934	2,701	2,545	2,432	2,346	2,278	2,223	2,177	2,138	2,104	2,075	2,050	2,027	2,007	1,989	1,973	1,958	1,945	1,932	1,921	1,910	1,901	1,891	1,883	1,875	1,868	1,861	1,854	1,848	1,842	1,806	1,775	1,710	1,653	1,645	
	30	4,171	3,316	2,922	2,690	2,534	2,421	2,334	2,266	2,211	2,165	2,126	2,092	2,063	2,037	2,015	1,995	1,976	1,960	1,945	1,932	1,919	1,908	1,897	1,887	1,878	1,870	1,862	1,854	1,847	1,841	1,835	1,829	1,792	1,761	1,695	1,637	1,630	
	31	4,160	3,305	2,911	2,679	2,523	2,409	2,323	2,255	2,199	2,153	2,114	2,080	2,051	2,026	2,003	1,983	1,965	1,948	1,933	1,920	1,907	1,896	1,885	1,875	1,866	1,857	1,849	1,842	1,835	1,828	1,822	1,816	1,779	1,748	1,681	1,623	1,616	
	32	4,149	3,295	2																																			

F-Verteilung für alpha = 0,01 (= „.... hoch signifikant“)

Formel in LO-CALC:  
=1/F.INV(0,01;fB;fA)

		Freiheitsgrad f <sub>A</sub> (Stichprobe mit der größeren Varianz)																																				
Freiheitsgrad f <sub>B</sub> (Stichprobe mit der kleineren Varianz)		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	40	50	100	500	1000
1	4052	4999	5403	5625	5764	5859	5928	5981	6022	6056	6083	6106	6126	6143	6157	6170	6181	6192	6201	6209	6216	6223	6229	6235	6240	6245	6249	6253	6257	6261	6264	6267	6287	6303	6334	6360	6363	
2	98,50	99,00	99,17	99,25	99,30	99,33	99,36	99,37	99,39	99,40	99,41	99,42	99,42	99,43	99,43	99,44	99,44	99,44	99,45	99,45	99,45	99,45	99,46	99,46	99,46	99,46	99,46	99,46	99,47	99,47	99,47	99,47	99,48	99,49	99,50	99,50	99,50	
3	34,12	30,82	29,46	28,71	28,24	27,91	27,67	27,49	27,35	27,23	27,13	27,05	26,98	26,92	26,87	26,83	26,79	26,75	26,72	26,69	26,66	26,64	26,62	26,60	26,58	26,56	26,55	26,53	26,52	26,50	26,49	26,48	26,41	26,35	26,24	26,15	26,14	
4	21,20	18,00	16,69	15,98	15,52	15,21	14,98	14,80	14,66	14,55	14,45	14,37	14,31	14,25	14,20	14,15	14,11	14,08	14,05	14,02	13,99	13,97	13,95	13,93	13,91	13,89	13,88	13,86	13,85	13,84	13,83	13,81	13,75	13,69	13,58	13,49	13,47	
5	16,26	13,27	12,06	11,39	10,97	10,67	10,46	10,29	10,16	10,05	9,963	9,888	9,825	9,770	9,722	9,680	9,643	9,610	9,580	9,553	9,528	9,506	9,485	9,466	9,449	9,433	9,418	9,404	9,391	9,379	9,368	9,357	9,291	9,238	9,130	9,042	9,031	
6	13,75	10,92	9,780	9,148	8,746	8,466	8,260	8,102	7,976	7,874	7,790	7,718	7,657	7,605	7,559	7,519	7,483	7,451	7,422	7,396	7,372	7,351	7,331	7,313	7,296	7,280	7,266	7,253	7,240	7,229	7,218	7,207	7,143	7,091	6,987	6,902	6,891	
7	12,25	9,547	8,451	7,847	7,460	7,191	6,993	6,840	6,719	6,620	6,538	6,469	6,410	6,359	6,314	6,275	6,240	6,209	6,181	6,155	6,132	6,111	6,092	6,074	6,058	6,043	6,029	6,016	6,003	5,992	5,981	5,971	5,908	5,858	5,755	5,671	5,660	
8	11,26	8,649	7,591	7,006	6,632	6,371	6,178	6,029	5,911	5,814	5,734	5,667	5,609	5,559	5,515	5,477	5,442	5,412	5,384	5,359	5,336	5,316	5,297	5,279	5,263	5,248	5,234	5,221	5,209	5,198	5,188	5,178	5,116	5,065	4,963	4,880	4,869	
9	10,56	8,022	6,992	6,422	6,057	5,802	5,613	5,467	5,351	5,257	5,178	5,111	5,055	5,005	4,962	4,924	4,890	4,860	4,833	4,808	4,786	4,765	4,746	4,729	4,713	4,698	4,685	4,672	4,660	4,649	4,638	4,628	4,567	4,517	4,415	4,332	4,321	
10	10,04	7,559	6,552	5,994	5,636	5,386	5,200	5,057	4,942	4,849	4,772	4,706	4,650	4,601	4,558	4,520	4,487	4,457	4,430	4,405	4,383	4,363	4,344	4,327	4,311	4,296	4,283	4,270	4,258	4,247	4,236	4,227	4,165	4,115	4,014	3,930	3,920	
11	9,646	7,206	6,217	5,668	5,316	5,069	4,886	4,744	4,632	4,539	4,462	4,397	4,342	4,293	4,251	4,213	4,180	4,150	4,123	4,099	4,077	4,057	4,038	4,021	4,005	3,990	3,977	3,964	3,952	3,941	3,931	3,921	3,860	3,810	3,708	3,624	3,613	
12	9,330	6,927	5,953	5,412	5,064	4,821	4,640	4,499	4,388	4,296	4,220	4,155	4,100	4,052	4,010	3,972	3,939	3,909	3,883	3,858	3,836	3,816	3,798	3,780	3,765	3,750	3,736	3,724	3,712	3,701	3,690	3,681	3,619	3,569	3,467	3,382	3,372	
13	9,074	6,701	5,739	5,205	4,862	4,620	4,441	4,302	4,191	4,100	4,025	3,960	3,905	3,857	3,815	3,778	3,745	3,716	3,689	3,665	3,643	3,622	3,604	3,587	3,571	3,556	3,543	3,530	3,518	3,507	3,497	3,487	3,425	3,375	3,272	3,187	3,176	
14	8,862	6,515	5,564	5,035	4,695	4,456	4,278	4,140	4,030	3,939	3,864	3,800	3,745	3,698	3,656	3,619	3,586	3,556	3,529	3,505	3,483	3,463	3,444	3,427	3,412	3,397	3,383	3,371	3,359	3,348	3,337	3,327	3,266	3,215	3,112	3,026	3,015	
15	8,683	6,359	5,417	4,893	4,556	4,318	4,142	4,004	3,895	3,805	3,730	3,666	3,612	3,564	3,522	3,485	3,452	3,423	3,396	3,372	3,350	3,330	3,311	3,294	3,278	3,264	3,250	3,237	3,225	3,214	3,204	3,194	3,132	3,081	2,977	2,891	2,880	
16	8,531	6,226	5,292	4,773	4,437	4,202	4,026	3,890	3,780	3,691	3,616	3,553	3,498	3,451	3,409	3,372	3,339	3,310	3,283	3,259	3,237	3,216	3,198	3,181	3,165	3,150	3,137	3,124	3,112	3,101	3,090	3,080	3,018	2,967	2,863	2,775	2,764	
17	8,400	6,112	5,185	4,669	4,336	4,102	3,927	3,791	3,682	3,593	3,519	3,455	3,401	3,353	3,312	3,275	3,242	3,212	3,186	3,162	3,139	3,119	3,101	3,084	3,068	3,053	3,039	3,026	3,014	3,003	2,993	2,983	2,920	2,869	2,764	2,676	2,664	
18	8,285	6,013	5,092	4,579	4,248	4,015	3,841	3,705	3,597	3,508	3,434	3,371	3,316	3,269	3,227	3,190	3,158	3,128	3,101	3,077	3,055	3,035	3,016	2,999	2,983	2,968	2,955	2,942	2,930	2,919	2,908	2,898	2,835	2,784	2,678	2,589	2,577	
19	8,185	5,926	5,010	4,500	4,171	3,939	3,765	3,631	3,523	3,434	3,360	3,297	3,242	3,195	3,153	3,116	3,084	3,054	3,027	3,003	2,981	2,961	2,942	2,925	2,909	2,894	2,880	2,868	2,855	2,844	2,834	2,824	2,761	2,709	2,602	2,512	2,501	
20	8,096	5,849	4,938	4,431	4,103	3,871	3,699	3,564	3,457	3,368	3,294	3,231	3,177	3,130	3,088	3,051	3,018	2,989	2,962	2,938	2,916	2,895	2,877	2,859	2,843	2,829	2,815	2,802	2,790	2,778	2,768	2,758	2,695	2,643	2,535	2,445	2,433	
21	8,017	5,780	4,874	4,369	4,042	3,812	3,640	3,506	3,398	3,310	3,236	3,173	3,119	3,072	3,030	2,993	2,960	2,931	2,904	2,880	2,857	2,837	2,818	2,801	2,785	2,770	2,756	2,743	2,731	2,720	2,709	2,699	2,636	2,584	2,475	2,384	2,372	
22	7,945	5,719	4,817	4,313	3,988	3,758	3,587	3,453	3,346	3,258	3,184	3,121	3,067	3,019	2,978	2,941	2,908	2,879	2,852	2,827	2,805	2,785	2,766	2,749	2,733	2,718	2,704	2,691	2,679	2,667	2,657	2,647	2,583	2,531	2,422	2,329	2,317	
23	7,881	5,664	4,765	4,264	3,939	3,710	3,539	3,406	3,299	3,211	3,137	3,074	3,020	2,973	2,931	2,894	2,861	2,832	2,805	2,781	2,758	2,738	2,719	2,702	2,686	2,671	2,657	2,644	2,632	2,620	2,609	2,599	2,535	2,483	2,373	2,280	2,268	
24	7,823	5,614	4,718	4,218	3,895	3,667	3,496	3,363	3,256	3,168	3,094	3,032	2,977	2,930	2,889	2,852	2,819	2,789	2,762	2,738	2,716	2,695	2,676	2,659	2,643	2,628	2,614	2,601	2,589	2,577	2,567	2,556	2,492	2,440	2,329	2,235	2,223	
25	7,770	5,568	4,675	4,177	3,855	3,627	3,457	3,324	3,217	3,129	3,056	2,993	2,939	2,892	2,850	2,813	2,780	2,751	2,724	2,699	2,677	2,657	2,638	2,620	2,604	2,589	2,575	2,562	2,550	2,538	2,527	2,517	2,453	2,400	2,289	2,194	2,182	
26	7,721	5,526	4,637	4,140	3,818	3,591	3,421	3,288	3,182	3,094	3,021	2,958	2,904	2,857	2,815	2,778	2,745	2,715	2,688	2,664	2,642	2,621	2,602	2,585	2,569	2,554	2,540	2,526	2,514	2,503	2,492	2,482	2,417	2,364	2,252	2,156	2,144	
27	7,677	5,488	4,601	4,106	3,785	3,558	3,388	3,256	3,149	3,062	2,988	2,926	2,871	2,824	2,783	2,746	2,713	2,683	2,656	2,632	2,609	2,589	2,570	2,552	2,536	2,521	2,507	2,494	2,481	2,470	2,459	2,449	2,384	2,330	2,218	2,122	2,109	
28	7,636	5,453	4,568	4,074	3,754	3,528	3,358	3,226	3,120	3,032	2,959	2,896	2,842	2,795	2,753	2,716	2,683	2,653	2,626	2,602	2,579	2,559	2,540	2,522	2,506	2,491	2,477	2,464	2,451	2,440	2,429	2,419	2,354	2,300	2,187	2,090	2,077	
29	7,598	5,420	4,538	4,045	3,725	3,499	3,330	3,198	3,092	3,005	2,931	2,868	2,814	2,767	2,726	2,689	2,656	2,626	2,599	2,574	2,552	2,531	2,512	2,495	2,478	2,463	2,449	2,436	2,423	2,412	2,401	2,391	2,325	2,271	2,158	2,060	2,047	
30	7,562	5,390	4,510	4,018	3,699	3,473	3,304	3,173	3,067	2,979	2,906	2,843	2,789	2,742	2,700	2,663	2,630	2,600	2,573	2,549	2,526	2,506	2,487	2,469	2,453	2,437	2,423	2,410	2,398	2,386	2,375	2,365	2,299	2,245	2,131	2,032	2,019	
31	7,530	5,362	4,484	3,993	3,675	3,449	3,281	3,149	3,043	2,955	2,882	2,820	2,765	2,718	2,677	2,640	2,606	2,577	2,550	2,525	2,502	2,482	2,463	2,445	2,429	2,414	2,399	2,386	2,374	2,362	2,351	2,341	2,275	2,220	2,106	2,006	1,993	
32	7,499	5,336	4,459	3,969	3,652	3,427	3,258	3,127																														