

Table 1: Results (MBit/s)

Instance	opt_value	approx_value	rel_gap	abs_gap	time_cplex
CPP_seed0_pod4_C20_newR3_oldR0	0	0	NaN	0	1,495
CPP_seed1_pod4_C20_newR3_oldR0	46,227	93,363	1,02	47,136	80,674
CPP_seed2_pod4_C20_newR3_oldR0	18,245	18,245	0	0	192,916
CPP_seed3_pod4_C20_newR3_oldR0	0	10,65	NaN	10,65	24,866
CPP_seed4_pod4_C20_newR3_oldR0	225,946	255,068	0,129	29,123	3600,221
CPP_seed5_pod4_C20_newR3_oldR0	23,472	93,889	3	70,417	23,514
CPP_seed6_pod4_C20_newR3_oldR0	0	-0	NaN	-0	25,341
CPP_seed7_pod4_C20_newR3_oldR0	0	0	NaN	0	15,83
CPP_seed8_pod4_C20_newR3_oldR0	43,384	101,23	1,333	57,846	68,254
CPP_seed9_pod4_C20_newR3_oldR0	0	0	NaN	0	13,959
CPP_seed10_pod4_C20_newR3_oldR0	0	0	NaN	0	1,477
CPP_seed11_pod4_C20_newR3_oldR0	6,675	66,752	9	60,077	46,704
CPP_seed12_pod4_C20_newR3_oldR0	0	11,117	NaN	11,117	16,124
CPP_seed13_pod4_C20_newR3_oldR0	0	0	NaN	0	13,51
CPP_seed14_pod4_C20_newR3_oldR0	9,818	9,818	0	0	45,152
CPP_seed15_pod4_C20_newR3_oldR0	32,102	192,922	5,01	160,82	150,876
CPP_seed16_pod4_C20_newR3_oldR0	0	21,6	NaN	21,6	12,509
CPP_seed17_pod4_C20_newR3_oldR0	0	-0	NaN	-0	32,721
CPP_seed18_pod4_C20_newR3_oldR0	204,326	320,813	0,57	116,487	68,894
CPP_seed19_pod4_C20_newR3_oldR0	0	0	NaN	0	25,695
CPP_seed20_pod4_C20_newR3_oldR0	6,874	6,874	0	0	40,189
CPP_seed21_pod4_C20_newR3_oldR0	67,103	67,103	0	0	71,458
CPP_seed22_pod4_C20_newR3_oldR0	0	0	NaN	0	19,035
CPP_seed23_pod4_C20_newR3_oldR0	15,782	26,304	0,667	10,522	82,633
CPP_seed24_pod4_C20_newR3_oldR0	26,373	53,585	1,032	27,213	247,269
CPP_seed26_pod4_C20_newR1_oldR5	47,351	59,188	0,25	11,838	208,436
CPP_seed27_pod4_C20_newR1_oldR5	288,338	334,503	0,16	46,165	14,964
CPP_seed28_pod4_C20_newR1_oldR5	210,358	210,358	-0	-0	46,712
CPP_seed29_pod4_C20_newR1_oldR5	15,324	25,3	0,651	9,976	4,875
CPP_seed30_pod4_C20_newR1_oldR5	587,559	614,403	0,046	26,845	11,313
CPP_seed31_pod4_C20_newR1_oldR5	62,535	62,535	-0	-0	52,673
CPP_seed32_pod4_C20_newR1_oldR5	38,259	38,259	-0	-0	4,148
CPP_seed33_pod4_C20_newR1_oldR5	196,353	196,353	0	0	10,573
CPP_seed34_pod4_C20_newR1_oldR5	184,83	184,83	0	0	21,762
CPP_seed35_pod4_C20_newR1_oldR5	326,302	326,302	-0	-0	7,035
CPP_seed36_pod4_C20_newR1_oldR5	1244,05	1244,05	-0	-0	76,43
CPP_seed37_pod4_C20_newR1_oldR5	700,665	745,344	0,064	44,679	47,495
CPP_seed38_pod4_C20_newR1_oldR5	626,514	626,514	-0	-0	5,517
CPP_seed39_pod4_C20_newR1_oldR5	12,672	12,672	-0	-0	16,199
CPP_seed40_pod4_C20_newR1_oldR5	592,235	552,19	-0,068	-40,045	3600,188
CPP_seed41_pod4_C20_newR1_oldR5	565,503	565,503	-0	-0	2,342
CPP_seed42_pod4_C20_newR1_oldR5	571,971	571,971	-0	-0	446,42
CPP_seed43_pod4_C20_newR1_oldR5	0	15,342	NaN	15,342	10,024
CPP_seed44_pod4_C20_newR1_oldR5	135,779	135,779	-0	-0	29,392

CPP_seed45_pod4_C20_newR1_oldR5	948,267	955,764	0,008	7,497	5,536
CPP_seed46_pod4_C20_newR1_oldR5	100,534	111,012	0,104	10,478	3,796
CPP_seed47_pod4_C20_newR1_oldR5	190,676	190,676	-0	-0	3,329
CPP_seed48_pod4_C20_newR1_oldR5	192,599	192,599	-0	-0	34,391
CPP_seed49_pod4_C20_newR1_oldR5	76,105	85,604	0,125	9,499	8,144
CPP_seed50_pod4_C20_newR1_oldR5	107,331	107,331	-0	-0	31,933
CPP_seed51_pod4_C30_newR4_oldR0	0	96,723	NaN	96,723	28,787
CPP_seed52_pod4_C30_newR4_oldR0	161,237	136,133	-0,156	-25,104	3600,324
CPP_seed53_pod4_C30_newR4_oldR0	17,132	17,132	-0	-0	3017,061
CPP_seed54_pod4_C30_newR4_oldR0	70,242	106,612	0,518	36,369	3600,323
CPP_seed55_pod4_C30_newR4_oldR0	43,444	43,444	-0	-0	2632,749
CPP_seed56_pod4_C30_newR4_oldR0	0	0	NaN	0	25,926
CPP_seed57_pod4_C30_newR4_oldR0	67,258	156,934	1,333	89,677	221,062
CPP_seed58_pod4_C30_newR4_oldR0	0	0	NaN	0	14,425
CPP_seed59_pod4_C30_newR4_oldR0	0	0	NaN	0	20,463
CPP_seed60_pod4_C30_newR4_oldR0	1199,9	1199,9	-0	-0	3600,286
CPP_seed61_pod4_C30_newR4_oldR0	18,462	36,925	1	18,462	3063,417
CPP_seed62_pod4_C30_newR4_oldR0	14,669	40,906	1,789	26,238	231,651
CPP_seed63_pod4_C30_newR4_oldR0	0	0	NaN	0	23,833
CPP_seed64_pod4_C30_newR4_oldR0	26,392	52,785	1	26,392	777,64
CPP_seed65_pod4_C30_newR4_oldR0	31,67	174,187	4,5	142,517	161,847
CPP_seed66_pod4_C30_newR4_oldR0	32,63	54,529	0,671	21,899	3600,306
CPP_seed67_pod4_C30_newR4_oldR0	302,006	302,006	0	0	2474,024
CPP_seed68_pod4_C30_newR4_oldR0	73,891	73,891	-0	-0	319,21
CPP_seed69_pod4_C30_newR4_oldR0	224,995	205,685	-0,086	-19,31	499,03
CPP_seed70_pod4_C30_newR4_oldR0	12,649	56,062	3,432	43,413	1306,355
CPP_seed71_pod4_C30_newR4_oldR0	0	61,862	NaN	61,862	16,701
CPP_seed72_pod4_C30_newR4_oldR0	25,368	43,318	0,708	17,95	1205,25
CPP_seed73_pod4_C30_newR4_oldR0	118,141	130,578	0,105	12,437	3600,37
CPP_seed74_pod4_C30_newR4_oldR0	11,421	43,843	2,839	32,422	893,58
CPP_seed75_pod4_C30_newR4_oldR0	170,716	170,716	0	0	3600,26
CPP_seed76_pod4_C30_newR2_oldR4	549,007	584,373	0,064	35,366	11,901
CPP_seed77_pod4_C30_newR2_oldR4	473,081	473,081	0	0	44,598
CPP_seed78_pod4_C30_newR2_oldR4	578,128	597,931	0,034	19,803	39,93
CPP_seed79_pod4_C30_newR2_oldR4	70,93	70,93	-0	-0	107,531
CPP_seed80_pod4_C30_newR2_oldR4	149,706	160,362	0,071	10,656	28,033
CPP_seed81_pod4_C30_newR2_oldR4	1269,909	1269,909	-0	-0	28,244
CPP_seed82_pod4_C30_newR2_oldR4	117,545	96,525	-0,179	-21,02	3600,417
CPP_seed83_pod4_C30_newR2_oldR4	566,978	608,247	0,073	41,269	1027,762
CPP_seed84_pod4_C30_newR2_oldR4	145,741	145,105	-0,004	-0,636	3600,303
CPP_seed85_pod4_C30_newR2_oldR4	132,686	140,941	0,062	8,255	81,323
CPP_seed86_pod4_C30_newR2_oldR4	94,173	94,173	0	0	6,294
CPP_seed87_pod4_C30_newR2_oldR4	67,17	98,095	0,46	30,926	48,522
CPP_seed88_pod4_C30_newR2_oldR4	413,095	525,897	0,273	112,802	3600,352
CPP_seed89_pod4_C30_newR2_oldR4	264,821	264,821	-0	-0	26,241
CPP_seed90_pod4_C30_newR2_oldR4	55,742	141,289	1,535	85,547	53,37

CPP_seed91_pod4_C30_newR2_oldR4	38,085	38,085	0	0	23,147
CPP_seed92_pod4_C30_newR2_oldR4	752,367	752,367	0	0	103,93
CPP_seed93_pod4_C30_newR2_oldR4	244,519	244,519	-0	-0	21,802
CPP_seed94_pod4_C30_newR2_oldR4	493,603	493,603	0	0	3600,361
CPP_seed95_pod4_C30_newR2_oldR4	596,667	596,667	-0	-0	3456,128
CPP_seed96_pod4_C30_newR2_oldR4	53,171	53,171	0	0	93,079
CPP_seed97_pod4_C30_newR2_oldR4	203,75	203,75	0	0	38,187
CPP_seed98_pod4_C30_newR2_oldR4	596,936	596,936	0	0	146,511
CPP_seed99_pod4_C30_newR2_oldR4	67,324	103,552	0,538	36,229	70,382
CPP_seed100_pod4_C30_newR2_oldR4	150,388	269,108	0,789	118,72	3463,861
CPP_seed101_pod4_C40_newR5_oldR0	18	18	0	0	214,52
CPP_seed102_pod4_C40_newR5_oldR0	0	14,088	NaN	14,088	24,459
CPP_seed103_pod4_C40_newR5_oldR0	0	65,257	NaN	65,257	31,283
CPP_seed104_pod4_C40_newR5_oldR0	25,544	97,447	2,815	71,903	3600,381
CPP_seed105_pod4_C40_newR5_oldR0	34,406	38,669	0,124	4,262	181,16
CPP_seed106_pod4_C40_newR5_oldR0	107,338	126,288	0,177	18,95	3600,67
CPP_seed107_pod4_C40_newR5_oldR0	629,278	501,233	-0,203	-128,045	3601,228
CPP_seed108_pod4_C40_newR5_oldR0	56,536	186,831	2,305	130,294	3600,373
CPP_seed109_pod4_C40_newR5_oldR0	0	57,572	NaN	57,572	36,745
CPP_seed110_pod4_C40_newR5_oldR0	18,362	27,543	0,5	9,181	264,392
CPP_seed111_pod4_C40_newR5_oldR0	57,523	115,046	1	57,523	2556,404
CPP_seed112_pod4_C40_newR5_oldR0	0	45,712	NaN	45,712	71,259
CPP_seed113_pod4_C40_newR5_oldR0	48,357	41,34	-0,145	-7,017	550,065
CPP_seed114_pod4_C40_newR5_oldR0	5,917	53,82	8,096	47,903	292,089
CPP_seed115_pod4_C40_newR5_oldR0	42,394	61,047	0,44	18,653	163,6
CPP_seed116_pod4_C40_newR5_oldR0	19,622	69,322	2,533	49,7	3406,216
CPP_seed117_pod4_C40_newR5_oldR0	11,359	26,207	1,307	14,848	1563,21
CPP_seed118_pod4_C40_newR5_oldR0	0	33,796	NaN	33,796	517,417
CPP_seed119_pod4_C40_newR5_oldR0	15,311	75,781	3,949	60,47	1624,586
CPP_seed120_pod4_C40_newR5_oldR0	309,11	599,592	0,94	290,482	3600,677
CPP_seed121_pod4_C40_newR5_oldR0	6,88	134,455	18,543	127,575	69,684
CPP_seed122_pod4_C40_newR5_oldR0	18,173	48,461	1,667	30,288	548,549
CPP_seed123_pod4_C40_newR5_oldR0	41,139	78,415	0,906	37,277	3600,663
CPP_seed124_pod4_C40_newR5_oldR0	50,501	50,501	-0	-0	3600,386
CPP_seed125_pod4_C40_newR5_oldR0	30,226	83,039	1,747	52,813	564,389
CPP_seed126_pod4_C40_newR3_oldR4	135,014	228,564	0,693	93,55	198,681
CPP_seed127_pod4_C40_newR3_oldR4	557,556	557,556	-0	-0	579,549
CPP_seed128_pod4_C40_newR3_oldR4	169,351	347,735	1,053	178,383	3591,334
CPP_seed129_pod4_C40_newR3_oldR4	1308,828	1308,828	-0	-0	3600,329
CPP_seed130_pod4_C40_newR3_oldR4	678,247	652,506	-0,038	-25,741	3600,33
CPP_seed131_pod4_C40_newR3_oldR4	258,714	325,392	0,258	66,678	2930,295
CPP_seed132_pod4_C40_newR3_oldR4	306,942	358,515	0,168	51,573	3600,335
CPP_seed133_pod4_C40_newR3_oldR4	403,239	403,239	-0	-0	2084,207
CPP_seed134_pod4_C40_newR3_oldR4	54,248	224,886	3,145	170,638	19,242
CPP_seed135_pod4_C40_newR3_oldR4	2,81	20,062	6,14	17,252	34,704
CPP_seed136_pod4_C40_newR3_oldR4	203,53	203,53	0	0	148,027

CPP_seed137_pod4_C40_newR3_oldR4	233,812	233,812	-0	-0	3600,407
CPP_seed138_pod4_C40_newR3_oldR4	106,495	138,499	0,301	32,004	3600,395
CPP_seed139_pod4_C40_newR3_oldR4	96,911	96,911	0	0	111,062
CPP_seed140_pod4_C40_newR3_oldR4	135,779	316,424	1,33	180,645	3600,501
CPP_seed141_pod4_C40_newR3_oldR4	95,74	102,954	0,075	7,214	55,257
CPP_seed142_pod4_C40_newR3_oldR4	47,951	47,951	-0	-0	10,193
CPP_seed143_pod4_C40_newR3_oldR4	1357,19	1415,266	0,043	58,076	3461,155
CPP_seed144_pod4_C40_newR3_oldR4	94,337	94,337	-0	-0	1751,253
CPP_seed145_pod4_C40_newR3_oldR4	462,161	355,401	-0,231	-106,76	3600,535
CPP_seed146_pod4_C40_newR3_oldR4	312,279	312,279	0	0	105,268
CPP_seed147_pod4_C40_newR3_oldR4	510,798	537,017	0,051	26,219	437,191
CPP_seed148_pod4_C40_newR3_oldR4	487,692	487,692	-0	-0	1312,759
CPP_seed149_pod4_C40_newR3_oldR4	278,862	484,53	0,738	205,668	3600,358
CPP_seed150_pod4_C40_newR3_oldR4	47,583	55,893	0,175	8,31	1037,844