Testset B 10/19/25, 12:24 PM

## **Testset B**

These instances are random generated sparse graphs with edge weights between 1 and 10.



The were introduced in <u>Bea84</u> and were generated following a scheme outlined in <u>Ane80</u> More information is among others in <u>Bea89</u>, <u>Luc93</u>, <u>KM98</u>, <u>PD00</u>.

The original data sets are from the **OR-Library**.

The files can be found in the <u>download</u> section.

Name	IVI	IEI	ITI	DC	Opt
b01	50	63	9	Ls	82
b02	50	63	13	Ls	83
b03	50	63	25	Ls	138
b04	50	100	9	Ls	59
b05	50	100	13	Ls	61
b06	50	100	25	Ps	122
b07	75	94	13	Ls	111
b08	75	94	19	Ls	104
b09	75	94	38	Ls	220
b10	75	150	13	Ps	86
b11	75	150	19	Ls	88
b12	75	150	38	Ls	174
b13	100	125	17	Ps	165
b14	100	125	25	Ps	235
b15	100	125	50	Ps	318
b16	100	200	17	Ps	127
b17	100	200	25	Ps	131
b18	100	200	50	Ps	218

The column **DC** classifies the difficulty of the instance.

L

Solvable by usage of local preprocessing. Typical examples are the SD-Test, BD-n Tests and FST computations. Neither a global upper nor lower bound needs to be computed.

Testset B 10/19/25, 12:24 PM

P

Solvable by polynomial time algorithms, like dual ascent in combination with primal heuristic, a integral LP formulation or advanced preprocessing like reduced cost criteria or the RCR-Test.

NP

No polynomial time algorithm is known. Use of an exponential time enumeration sceme like Branch-and-Bound is necessary.

The letter after class gives an impression how long it takes to solve the problem using state-of-the-art soft-and hardware. secounds means less than a minute (this includes instances which can be solved in fractions of a second). minutes means less than an hour. hours is less than a day and days is less than a week. weeks mean it takes really a long time to solve this instance.? means the instance is not solved or the time is not known.

If the number in the **Opt** column is written in *italics* the optimum is not known. The number given is the best know upper bound.

Last Update: 2015/02/11 11:57:20 \$ by Thorsten Koch

© 2001 by Konrad-Zuse-Zentrum für Informationstechnik Berlin (ZIB)

URL: http://www.zib.de