

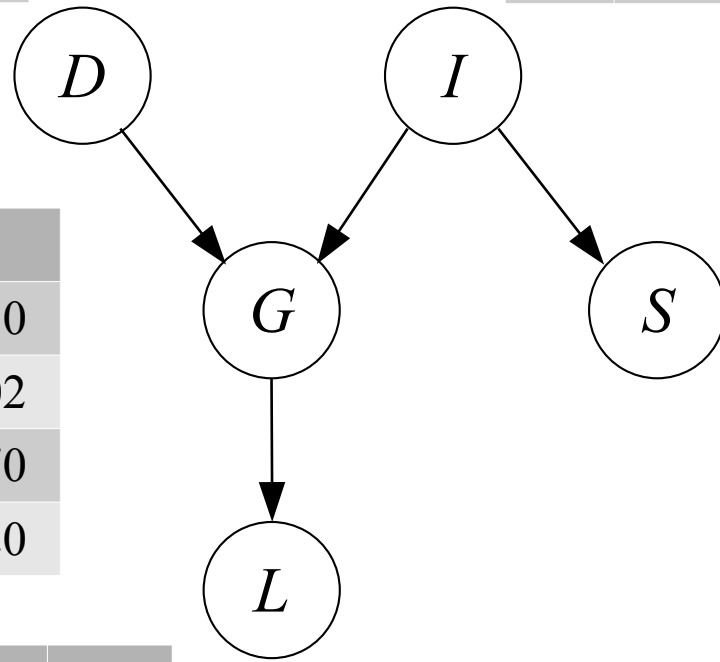
# Bayesian Network "Student"

$$P(D)$$

$d_0$	$d_1$
0.6	0.4

$$P(I)$$

$i_0$	$i_1$
0.7	0.3



$$P(G \mid D, I)$$

	$g_0$	$g_1$	$g_2$
$d_0, i_0$	0.30	0.40	0.30
$d_0, i_1$	0.90	0.08	0.02
$d_1, i_0$	0.05	0.25	0.70
$d_1, i_1$	0.50	0.30	0.20

$$P(S \mid I)$$

	$s_0$	$s_1$
$i_0$	0.95	0.05
$i_1$	0.20	0.80

$$P(L \mid G)$$

	$l_0$	$l_1$
$g_0$	0.10	0.90
$g_1$	0.40	0.60
$g_2$	0.99	0.01

$D$  := Difficulty  
 $I$  := Intelligence  
 $G$  := Grade  
 $S$  := SAT  
 $L$  := Letter

*Daphne Koller and Nir Friedman, "Probabilistic Graphical Models: Principles and Techniques", MIT Press, 2009*

# Factor Graph Representation

