

Problem 1: Bedtime waking mood sleep problem

Some children have sleep problems that can affect their growth and behavior. To determine if a child has a sleep problem, the following three factors are considered: bedtime (early, normal or late), waking (early, normal or late), and mood during daytime (normal or irritable). Based on the following 18 instances, apply 1R algorithm to generate a set of rules to classify children's sleep problems (yes or no).

Row	Bedtime	Waking	Mood during daytime	Sleep problems
1	early	early	normal	Yes
2	early	early	irritable	yes
3	early	normal	normal	no
4	early	normal	irritable	no
5	early	late	normal	no
6	early	late	irritable	yes
7	normal	early	normal	yes
8	normal	early	irritable	yes
9	normal	normal	normal	no
10	normal	normal	irritable	no
11	normal	late	normal	no
12	normal	late	irritable	yes
13	late	early	normal	yes
14	late	early	irritable	yes
15	late	normal	normal	no
16	late	normal	irritable	yes
17	late	late	normal	yes
18	late	late	irritable	yes