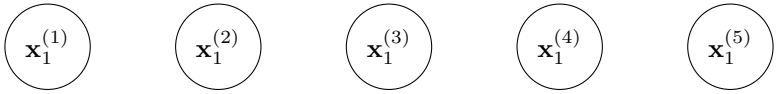
Particle filter

$t = 2$

Sample 2nd generation using corresponding parents

$$\mathbf{x}_2^{(k)} \sim q(\cdot \mid \mathbf{y}_2, \mathbf{x}_1^{(A_1^{(k)})}, \theta)$$



$0/5$ $2/5$ $2/5$ $0/5$ $1/5$

$A_1^{(1)} = 2$ $A_1^{(2)} = 3$ $A_1^{(3)} = 5$ $A_1^{(4)} = 3$ $A_1^{(5)} = 2$