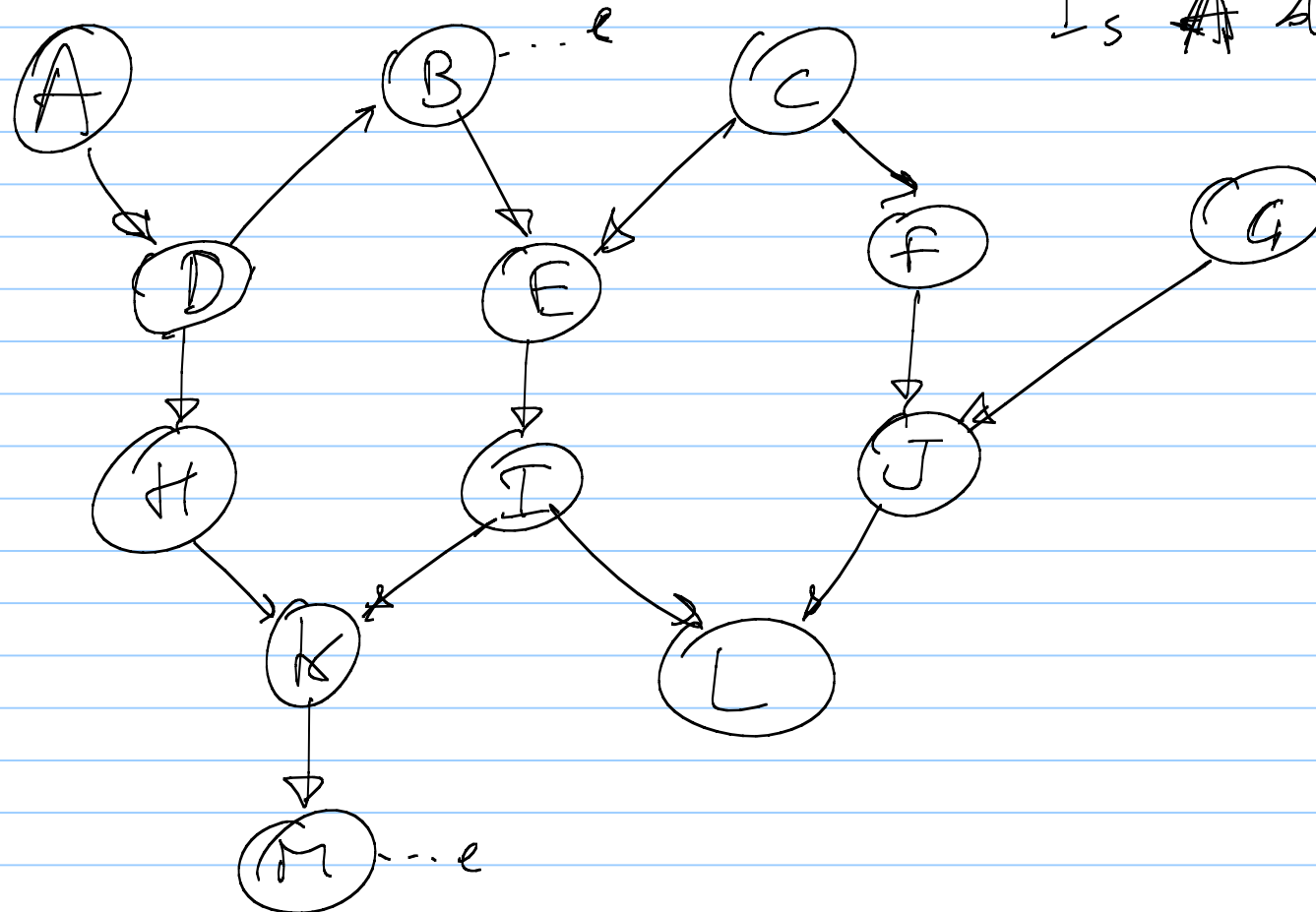


582

2010-08-23

Note Title

8/23/2010

p. 31
[5 of 7]Is ~~A~~ A-separated from G?
$$A \rightarrow D \xrightarrow{e} B \rightarrow E \rightarrow I \rightarrow L \leftarrow J \leftarrow G$$

$$A \rightarrow D \rightarrow H \rightarrow K \leftarrow I \rightarrow \dots \rightarrow G$$

e on edge independent of K

If $P(A|B, C) = P(A|C)$ then

, = and, which
is used
instead
of intersection

$$P(A, B|C) = P(A|C) \times P(B|C)$$

$$\Downarrow$$
$$P(A|B, C) \times P(B|C)$$

$$P(A, B|C) \times P(B|C)$$

$$P(A, B|C) = \frac{P(A, B, C)}{P(C)} = \frac{P(A|B, C) \cdot P(B, C)}{P(C)}$$

$$= \frac{P(A|C) \cdot P(B|C) \cdot \cancel{P(C)}}{\cancel{P(C)}} = P(A|C) \cdot P(B|C)$$

Ex. 1.7, 1.11, 1.12, 1.13

due 9/1