a. Genome to be sequenced

b. Sequenced reads and resulting kmers (k=3)

TAGCTTT (TAG, AGC, GCT, CTT, TTT) TTAATTA (TTA, TAA, AAT, ATT, TTA) ATAGCTT (ATA, TAG, AGC, GCT, CTT) CATAGCT (CAT, ATA, TAG, AGC, GCT) AGCGTTA (AGC, GCG, CGT, GTT, TTA) GCTTTAA (GCT, CTT, TTT, TTA, TAA)

c. de Bruijn graph reconstruction (k=3)

ACCATAGCTTTAATTA

ACCATAG (ACC, CCA, CAT, ATA, TAG)

$$\begin{array}{c}
GCT \\
(4) \\
CTT \\
(3) \\
CTT \\
(2)
\end{array}$$

$$\begin{array}{c}
TTA \\
(3) \\
TTA \\
(3)
\end{array}$$

$$\begin{array}{c}
TTA \\
(2)
\end{array}$$

$$\begin{array}{c}
TTA \\
(3)
\end{array}$$

$$\begin{array}{c}
TTA \\
(1)
\end{array}$$