第一次作业

(1)

第四列为所示特征序列在目标序列/染色体中的起始位点，第五列为该特征序列的终止位点。如果该序列是一个exon，则其长度应该为第五列减去第四列加上1。

(2)

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XI      ensembl CDS     82947   82998   .       +       0       gene_id "YKL190W";
gene_version "1"; transcript_id "YKL190W"; transcript_version "1"; exon_number
"1"; gene_name "CNB1"; gene_source "ensembl"; gene_biotype "protein_coding";
transcript_name "CNB1"; transcript_source "ensembl"; transcript_biotype
"protein_coding"; protein_id "YKL190W"; protein_version "1";
XI      ensembl CDS     83075   83547   .       +       1       gene_id "YKL190W";
gene_version "1"; transcript_id "YKL190W"; transcript_version "1"; exon_number
"2"; gene_name "CNB1"; gene_source "ensembl"; gene_biotype "protein_coding";
transcript_name "CNB1"; transcript_source "ensembl"; transcript_biotype
"protein_coding"; protein_id "YKL190W"; protein_version "1";
XI      ensembl CDS     84704   85900   .       +       0       gene_id "YKL189W";
gene_version "1"; transcript_id "YKL189W"; transcript_version "1"; exon_number
"1"; gene_name "HYM1"; gene_source "ensembl"; gene_biotype "protein_coding";
transcript_name "HYM1"; transcript_source "ensembl"; transcript_biotype
"protein_coding"; protein_id "YKL189W"; protein_version "1";
XI      ensembl CDS     86228   88786   .       -       0       gene_id "YKL188C";
gene_version "1"; transcript_id "YKL188C"; transcript_version "1"; exon_number
"1"; gene_name "PXA2"; gene_source "ensembl"; gene_biotype "protein_coding";
transcript_name "PXA2"; transcript_source "ensembl"; transcript_biotype
"protein_coding"; protein_id "YKL188C"; protein_version "1";
XI      ensembl CDS     89287   91536   .       -       0       gene_id "YKL187C";
gene_version "1"; transcript_id "YKL187C"; transcript_version "1"; exon_number
"1"; gene_source "ensembl"; gene_biotype "protein_coding"; transcript_name
"YKL187C"; transcript_source "ensembl"; transcript_biotype "protein_coding";
protein_id "YKL187C"; protein_version "1";
XI      ensembl CDS     92747   93298   .       -       0       gene_id "YKL186C";
gene_version "1"; transcript_id "YKL186C"; transcript_version "1"; exon_number
"1"; gene_name "MTR2"; gene_source "ensembl"; gene_biotype "protein_coding";
transcript_name "MTR2"; transcript_source "ensembl"; transcript_biotype
"protein_coding"; protein_id "YKL186C"; protein_version "1";
XI      ensembl CDS     94499   96262   .       +       0       gene_id "YKL185W";
gene_version "1"; transcript_id "YKL185W"; transcript_version "1"; exon_number
"1"; gene_name "ASH1"; gene_source "ensembl"; gene_biotype "protein_coding";
transcript_name "ASH1"; transcript_source "ensembl"; transcript_biotype
"protein_coding"; protein_id "YKL185W"; protein_version "1";
XI      ensembl CDS     96757   98154   .       +       0       gene_id "YKL184W";
gene_version "1"; transcript_id "YKL184W"; transcript_version "1"; exon_number
"1"; gene_name "SPE1"; gene_source "ensembl"; gene_biotype "protein_coding";
transcript_name "SPE1"; transcript_source "ensembl"; transcript_biotype
"protein_coding"; protein_id "YKL184W"; protein_version "1";
XI      ensembl CDS     98398   98607   .       -       0       gene_id "YKL183C-
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A"; gene_version "1"; transcript_id "YKL183C-A"; transcript_version "1";
exon_number "1"; gene_source "ensembl"; gene_biotype "protein_coding";
transcript_name "YKL183C-A"; transcript_source "ensembl"; transcript_biotype
"protein_coding"; protein_id "YKL183C-A"; protein_version "1";
XI      ensembl CDS     98721   99638   .       +       0       gene_id "YKL183W";
gene_version "1"; transcript_id "YKL183W"; transcript_version "1"; exon_number
"1"; gene_name "LOT5"; gene_source "ensembl"; gene_biotype "protein_coding";
transcript_name "LOT5"; transcript_source "ensembl"; transcript_biotype
"protein_coding"; protein_id "YKL183W"; protein_version "1";
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(3)

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    853 start_codon
    853 stop_codon
    886 gene
    886 transcript
    895 CDS
    933 exon
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