O que sai do sequenciador?

```
@M01838:7:000000000-C747T:1:1101:15246:1686 1:N:0:58
TACGTAGGGGGCAAGCGTTGTCCGGATTGACTGGGCTTAAAGGGCGTGTAGGCCGCCTGTTAAGTTTGATG
TGAAATTCCTCCTCTCAAGGTGTGTGCTTTGCTTTTTATCCTGTCTGTCTTGATTCCGGAAGAGGTAATTGGA
ATTCCCATTGTAGCGGTGACATTCTTAGAGTTTGGTAGGAACTCCAGTTGCGAAGGCCACTTCCTTGCCCT
TAACTGACGCTTATGCGCGCCAGCGTGCGTATCCAACAGGATTCTATACCCCGGTAGTCCTGCTGGCTTAC
TATCTCTTATTCCTTCT
+
C<CCCC<@CCEC@FGGGGGFGGGC@7,8,;;C6,,,,;,,,,,6678+89B,9,+68@,,66,AC,<,,,,
<9,,,,69,A,,:,9<,95,:,,,,,9<,95A@,44,,5A,:,,,,9B?,6,9,9,++++,,,9,,,4,,6
,8AD=,,,7,7;+6++6+6,,6,;,6;9*+*66,+*+,)*,5+@@)0?87:*****1*01:A*1:,,))0)
3,,.:**0)-5((*.8(6((*22()6:(((((/++26(,)3.:)-))+3<C(((-((.:<-
+434538*)5<)))-6)6)1.64)6<2
```

Fastq

- Valor de qualidade = $-10\log_{10}(P)$
- Se uma base tem 1% de chance de estar errada: $-10 \times \log_{10}(0.01) =$ **20**
- Escala de "chance de erro"

```
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHI
|                                  |       |            |
0.2.............................26...31.........41

+
C<CCCC<@CCEC@FGGGGGFGGGC@7,8,;;C6,,,,;,,,,,6678+89B,9,+68@,,66,AC,<,,,,<9,
,,,,69,A,,:,9<,95,:,,,,,,9<,95A@,44,,5A,:,,,,9B?,6,9,9,++++,,,9,,,4,,6,8AD=,
,,7,7;+6++6+6,,6,;,6;9*+*66,+*+,)*,5+@@)0?87:*****1*01:A*1:,,))0)3,,.:**0)
-5((*.8(6((*22()6:(((((/++26(,)3.:)-))+3<C((((-((.:<-+434538*)5<)))-
6)6)1.64)6<2
```