

Phred scaling makes it easier to handle probability scores

- *Phred value* = $-10 * \log_{10}(\epsilon)$
- Examples:
 - 90% confidence (10% error rate) = Q10
 - 99% confidence (1% error rate) = Q20
 - 99.9% confidence (.1% error rate) = Q30
- SAM encoding adds 33 to the value
(because ASCII 33 is the first visible character)

