Question #15388 The I . Q . of students of a school was found to be normally distributed with a mean $\mu = 116$ and a standard deviation of $\sigma = 8$. What % age of children have I . Q . from 100 to 124.

Solution. Denote by X the I.Q. of student. $P(100 < X < 124) = P(-2 < \dfrac{X - 116}{8} < 1) = \Phi(1) - \Phi(-2) \approx 0.82$.

Answer. 0.82.