

5]

Дано:

$$X \sim N(\mu, \sigma^2)$$

$$E[X] = 178$$

$$D[X] = 25$$

$$X = 190$$

Найти:

$$Z = \frac{X - \mu}{\sigma}$$

Решение:

$$X \sim N(\mu, \sigma^2)$$

$$\mu = E[X] = 178$$

$$\sigma^2 = D[X] = 25 \Rightarrow \sigma = 5$$

$$Z = \frac{X - \mu}{\sigma} = \frac{190 - 178}{5} = \frac{12}{5} = 2\frac{2}{5} = 2\frac{4}{10} = 2.4$$

Ответ:

$$\boxed{Z = 2.4}$$