Weighted Average

Session 61

$$\overline{x} = \frac{\int_{-1}^{3} x(4-(x-1)^2)\,dx}{\int_{-1}^{3} (4-(x-1)^2)\,dx} = \frac{10\frac{2}{3}}{10\frac{2}{3}} = 1$$

$$\bar{y} = \frac{\int_{0}^{4} y(2\sqrt{y})\,dy}{\int_{0}^{4} 2\sqrt{y}\,dy} = 2.4$$