7. **In this question you must show all stages of your working.**

Solutions relying on calculator technology are not acceptable.

Show that

$$\lim_{\delta x \to 0} \sum_{x=2}^{3} \frac{(x-3)^2}{x^{\frac{3}{2}}} \delta x = p\sqrt{2} + q\sqrt{3}$$

where p and q are constants to be found.

(5)