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2014 6What is the derivative of $3 \sin^{-1} \frac{x}{2}$?**1**

(A) $\frac{6}{\sqrt{4-x^2}}$

(B) $\frac{3}{\sqrt{4-x^2}}$

(C) $\frac{3}{2\sqrt{4-x^2}}$

(D) $\frac{3}{4\sqrt{4-x^2}}$

B

$$\begin{aligned} \frac{d}{dx} \left(3 \sin^{-1} \frac{x}{2} \right) &= 3 \times \frac{1}{\sqrt{4-x^2}} \\ &= \frac{3}{\sqrt{4-x^2}} \end{aligned}$$

State Mean: 0.75

* These solutions have been provided by [projectmaths](#) and are not supplied or endorsed by BOSTES.