## Question

1. Differentiate $Q(x) = x^2 - 5x + 7/2x$ with respect to x

## Solution

$$\left(Q(x)\right)' = \left(x^2 - 5x + \frac{7}{2x}\right)' = (x^2)' - (5x)' + \left(\frac{7}{2}(x^{-1})\right)' = 2x - 5 + \frac{7}{2}(-1)x^{-2}$$

$$= 2x - 5 - \frac{7}{2x^2}$$

**Answer:** $\left(Q(x)\right)' = 2x - 5 - \frac{7}{2x^2}$.