

## Answer on Question #82420 – Math – Calculus

### Question

1. Differentiate  $Q(x) = x^2 - 5x + \frac{7}{2x}$  with respect to  $x$

### Solution

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

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