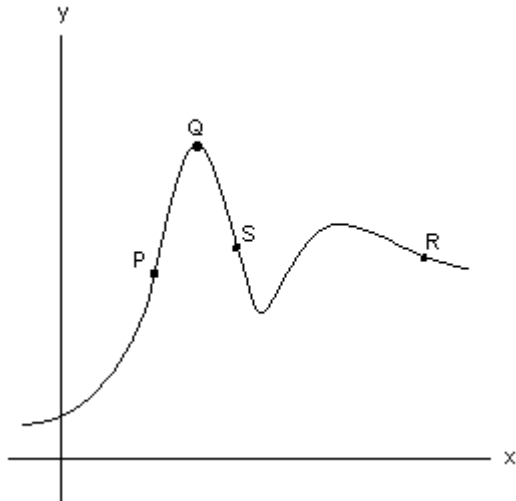


Referring to the graph below, assign one of the following descriptors to the point:

- i) large positive slope ii) small positive slope iii) zero slope
iv) small negative slope v) large negative slope



1) P

2) Q

3) S

4) R

5) a) State the definition of the derivative, using limits.

b) Use the definition of the derivative to find $f'(x)$ given $f(x) = 2x^2 - x + 5$.

c) Then find the derivative at $x = -2$, $x = 0$, and $x = 1$

Answer Key

Testname: WORKSHEET 2.1 DEFINITION OF DERIVATIVE

1) i) large positive slope

2) iii) zero slope

3) v) large negative slope

4) iv) small negative slope

5) a) $f'(x) = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$ b) $4x - 1$; c) $f'(-2) = -9, f'(0) = -1; f'(1) = 3$