

7 Difference quotient as slope of secant / chord

Marks

1. Find the slope of the secant connecting $f(3)$ and $f(6)$ on the function $y = x^2 + 1$ [1]
2. What is the slope of the secant line between the origin and $x = 3$ on the function $y = 2x^3$? [1]
3. Consider the properties of an odd function which other two points will have the same secant slope ?why? [1]
4. Consider the curve $y = x^2$, which is an even function. What is the slope of the secant line between $x = 1$ and $x = 3$? Compare this to the slope of the secant between $x = 1$ and $x = -3$ [1]