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Find the point of discontinuing of the given function: **2 Marks**

$f(x) = \frac{3x + 1}{X^2-7x+12}$

Find $\frac{dx}{dy}$ at (-5,6) if $x^2 + y^2 = 0$ **2 Marks**

Determine whether $\lim_{x->0} \frac{1 - \cos |x|}{x}$ exists or not? **3 Marks**

if f '(t)= 2t then find the intervals on which the function $f(t)$ increasing and decreasing? **3 Marks**

Use an epsilon-delta argument to prove that **5 Marks**

$\lim_{x->0} (3x+5) = 35$

if $f(x)$ = x -5x+6 then find the intervals where the function is concave up and concave down. **5 Marks**