Emenike Chinwe [illegible]
Mathematics assignment on
[illegible]

1 $f(x) = [illegible]$
$f(x) = [illegible]$
$x \to [illegible]$

2 $\lim\limits_{x \to 2} [illegible]$

x	$f(x)$
6.1	4.5
6.01	4.05
6.001	4.005
6.0001	4.0005
6.00001	[illegible]
6.000001	[illegible]
6.0000001	[illegible]

Hence $f(x) = [illegible]$ [illegible]

3 $\lim\limits_{x \to 3/2} \frac{3 - x}{[illegible]} = \frac{3 - (3 + [illegible])}{2 - (3 [illegible])} = \frac{1}{6}$

limit is indeterminate [illegible]

$\lim\limits_{x \to 3} \frac{x - 3}{|x - 3|}$

$x \; 3^{0}$

$\lim_{x \to 0^+}$ [illegible]

$\frac{3-3}{3-3}$ [illegible]

$x < 0$

$\lim_{x \to 0^-}$ [illegible]

$\frac{3-3}{3-3} = \frac{0}{0}$ indeterminate

Limit doesn't exist [illegible]

5 a) point $x = 4$

$f(x) = \sqrt{x-4}$

$\lim_{x \to 4} \sqrt{x-4} = \sqrt{4-4}$

$= \sqrt{0} = 0$

$f(x) = \sqrt{4-4} = \sqrt{0}$

B) point $x = 8$

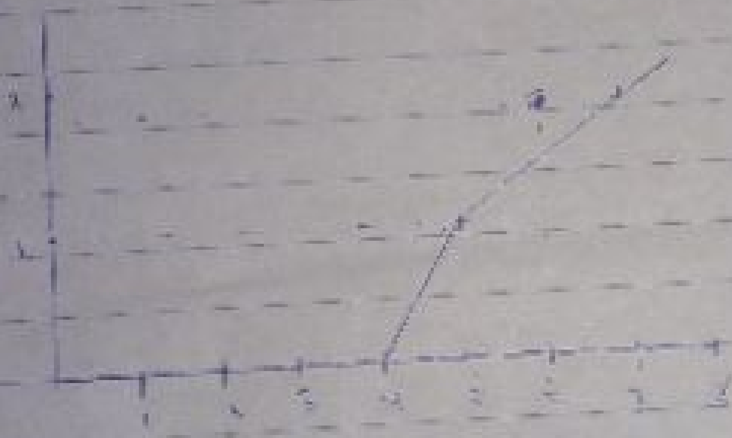
$\lim \sqrt{x-4} = \sqrt{8-4} = \sqrt{4} = 2$

$f(x) = \sqrt{8-4} = 2$

$\lim_{x \to (4, 8)} f(x) = \mu(4, 8$

$f(x)$ is continuous at (4, 8)

$f(4) = \sqrt{5-4} = 1$ $f(5) = \sqrt{[illegible]} = [illegible]$ $f(x) = [illegible]$



Scale Y = 2 [illegible]
X = 1cm [illegible]