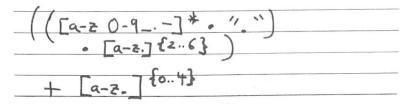
An	swe	rs			
 4 1	,	10	10 8		
					1 .

Name: Ubaya Khan (ubaya. khan @ kcl.ac.uk
BSg/MSci Year: 3
Programming Languages: Java, Scala, Python
Prolog, Harkell, JavaScript and Typercript,
C+P, C#, Go
Question 3:
$nullable([c_1, c_2,, c_n]) \stackrel{\text{def}}{=} false$
Administra
$nullable(r^2)$ $\stackrel{\text{def}}{=}$ $true$
nullable (r1 & r2) def nullable (c1) & & rullable (c2)
nullable $(r^{\{n\}})$ $\stackrel{\text{def}}{=}$ $1 + n = 0$ true
elre nullable (r-r {n-1})
nullable($r^{\{m\}}$) $\stackrel{\text{def}}{=}$ $i + m \ge 0$ true
else false
nullable $(r^{\{n\}})$ $\stackrel{\text{def}}{=}$ if $n=0$ true
else rullable (r. r {n-1})
$nullable(r^{\{nm\}})$ $\stackrel{\text{def}}{=}$ $\downarrow f$ $\wedge = 0$ true
else folie
$nullable(\sim r)$ $\stackrel{\text{def}}{=}$ $\frac{1}{1}$ $(nullable(r))$
(a) who his rely in Garage Torons

$$der c ([c_1, c_2, ..., c_n]) \stackrel{\text{def}}{=} if [c_1, ..., c_n] contain (e) | else 0$$

$$der c (r^+) \stackrel{\text{def}}{=} der (c_1) \stackrel{\text{def}}{=} der$$

Question 5 ('mathematical' notation):



Question 6:

1) (Yes)/ No

2) Yes/No 3) Yes/No 4) Yes/No

Question 7:

	r_1	r_2
1.	yes	705
2.	۸٥	10
3.	Λο	465