

```
\functions {  
}
```

```
\programVariables {  
  
}
```

```
\problem {
```

```
(\forall R x1 . \forall R v1 . \forall R a1 . \forall R vsl . \forall R xsl . \forall R B .  
\forall R A. \forall R ep.  
\forall R xj. \forall R vj. \forall R aj. \forall R sl . \forall R slPos . \forall R MAXBREAK  
 . \forall R MAXACCEL . \forall R TICK.
```

```
(  
(x1 - 1 < xj & xj <= x1 & (x1 >= 0 -> xj >= 0) & (x1 < 0 -> xj < 0) &  
v1 - 1 < vj & vj <= v1 & (v1 >= 0 -> vj >= 0) & (v1 < 0 -> vj < 0) &  
a1 - 1 < aj & aj <= a1 & (a1 >= 0 -> aj >= 0) & (a1 < 0 -> aj < 0) &  
vsl - 1 < sl & sl <= vsl & (vsl >= 0 -> sl >= 0) & (vsl < 0 -> sl < 0) &  
xsl - 1 < slPos & slPos <= xsl & (xsl >= 0 -> slPos >= 0) & (xsl < 0 -> slPos < 0) &  
-B + 1 > MAXBREAK & MAXBREAK >= -B & (-B >= 0 -> MAXBREAK >= 0) & (-B < 0 -> MAXBREAK < 0) &  
A-1 < MAXACCEL & MAXACCEL <= A & (A >= 0 -> MAXACCEL >= 0) & (A < 0 -> MAXACCEL < 0) &  
TICK = ep & ep = 2 & vj >= 0 & v1 >= 0 & xj >= 0 & x1 >= 0 & sl >= 0 & vsl >= 0 & (x1 >= xsl  
-> v1 <= vsl) & (xj >= slPos -> vj <= sl))->
```

```
(  
((MAXBREAK <= (aj - 1)) &  
aj <= (MAXACCEL - 1) &  
(xj >= slPos - 1 -> (aj <= (((sl - vj) / TICK) - 2))) &  
(((xj < (slPos + 1)) -> (slPos >= xj+1 + (vj+1)^2 + (((aj + 1) + 1) * ((aj + 1) * TICK^2 +  
TICK * (vj+1)))))))->
```

```
(  
(-B <= a1) &  
(a1 <= A &  
(x1 >= xsl -> (a1 <= (vsl - v1) / ep)) &  
(x1 < xsl -> (xsl >= x1 + v1^2 + (a1 + 1) * (a1 * ep^2 + ep * v1)))  
)))))}
```