1.

The domain is all values that z is allowed to be.
Since I can't divide by zero (division by zero isn't allowed,
I need to find all values of z that would cause division by zero.
The domain will then be all other z-values.
 When is this denominator equal to zero?

$z^2 - 30z + 125 = 0$

z=5 or 25 then the domain of n is $\{z \mid z \neq 5$ or $25\}$