3.

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

$p^2 - 27p + 50 = 0$

$p = 2$ or 25 then the domain of r is $\{p \mid p \neq 2 \text{ or } 25\}$