

2.

The domain is all values that  $y$  is allowed to be.

Since I can't divide by zero (division by zero isn't allowed,  
I need to find all values of  $y$  that would cause division by zero.  
The domain will then be all other  $y$ -values.

When is this denominator equal to zero?

$$5y^4 + 25 = 0$$

impossible , then the domain of  $u$  is  $(-\infty, \infty)$  i.e.  $y \in \mathbb{R}$