Example

*When a number is increased by 10% of itself the result is 22. Find the number.*

**Solution steps:**

- Let \( x \) denote the number that we are seeking.
- We know that 10% of \( x \) is \( \frac{1}{10}x \) or \( .1x \). But when \( x \) is increased by \( .1x \) the result is 22, so
  
  \[ x + .1x = 22, \]
  
  or
  
  \[ (1 + .1)x = 22, \quad \text{or} \quad 1.1x = 22. \]

- Divide both sides of the last equation by 1.1 so that \( x \) stands alone on the left-hand side of the equation:
  
  \[ x = \frac{22}{1.1} = 20. \]

The number is: \( \boxed{20} \)