Algorithm 1 Merge statements
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  procedure Merge(*consumer_statement, producer_statement*)

      Create a new statement, Merged statement

      Producer statement list = Union of Producer statements of both statements

      Remove Producer statement from Producer statement list

      Consumer statement list = Union of Consumer statements of both statements

      Remove Consumer statement from Consumer statement list

      Result size = Consumer statement's Result size

      Benefit = Producer statement's Result size

      Consist = [Consumer_statement, Producer_statement]

      if Producer/Consumer statements are Merge statement **then**

         Inherit results from previous merge

      Put results into Merged statement

  return Merged statement