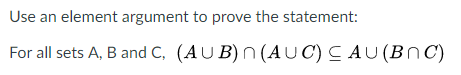
**Week 4 Quiz**



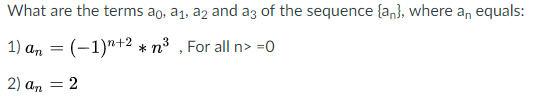
**1.)**



**2.) Suppose . By definitions of union and intersect , or AND or . This states that x is an element in sets A or B, and also x is an element in set A or C. It follows that x must be an element in A or an element in B and C.   
On the other hand, implies that or AND . This states that x is an element in A or an element in B and C.  
Therefore, follows that . Hence we can conclude that [what we needed to show.]**

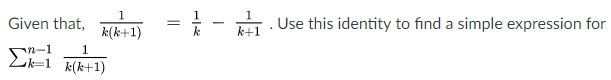


**3.) by Set Difference law  
 by Distributive law  
 by DeMorgan’s law  
 by Commutative law  
 by Set Difference law  
 by Set Difference law**

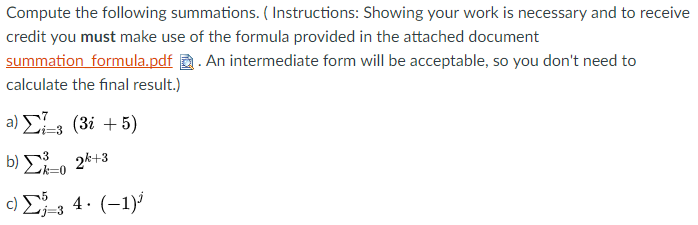


**4.) 1.)**

**2.)**



**5.)**



**6.a.)**

**6.b.)**

**6.c.)**