

**MODEL ACTIVITY TASKS**  
**CLASS – XI**  
**MATHEMATICS**

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**Write the answers to the following questions :**

1. If  $I_n$  is a set of first  $n$  natural numbers then show that  $I_6 \cup (I_8 - I_5) = I_8$ .
2. By algebra of sets, prove that  $A \cup (A \cap B) = A$ .
3. If  $A$ ,  $B$  and  $C$  are three finite sets then prove that  $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ .
4. Using set theory, show that  $(A \cup B) \cup (A' \cap B')$  is a universal set.

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**Students will write answers to these activity tasks in subject specific exercise books at home, and submit the exercise books to respective subject teachers after schools reopen.**  
**Under no circumstance, students will go out of home.**