

zero

[MTH411] Let  $K$  be a bounded closed set contained in the open interval  $(I)$ . Then  $m(K) = m(I) - m(I - K)$

[MTH411] Let  $E$  be a closed set and let  $G$  be a bounded open set. If  $(E \subseteq G)$ , then  $m(E) > m(G)$

[MTH411] Let  $X$  be an arbitrary set. Then a                      on  $X$  is a family of subsets of  $X$  that contains  $\emptyset$  and is closed under complementation, formation of countable unions and formation of countable intersections.  
algebra

[MTH411] Let  $X$  be any set and let  $M = P(X)$ , the power set of  $X$ . Then  $M$  is a                      on  $X$   
q  $\subseteq$  algebra

[MTH411] Let  $X$  be an infinite set and let  $M$  be the collection of all subsets  $A$  of  $X$  such that  $A$  or  $A^c$  is finite. Then  $M$  is                      on  $X$   
algebra

[MTH411] Let  $(E_1)$  and  $(E_2)$  be two sets. If  $(E_1 \subseteq E_2)$ , then  $m(E_1) \leq m(E_2)$

[MTH411] Let  $X$  be any set and let  $M$  be the collection of all subsets  $A$  of  $X$  such that either  $A$  or  $A^c$  is countable. Then  $M$  is                      on  $X$ .  
q  $\subseteq$  algebra

[MTH411] The inner measure  $m_*(K)$  of a bounded set  $K$  is the                      of the measures of all bounded closed sets contained in the set  $K$ .  
least upper bound

[MTH411] The outer measure  $m^*(K)$  of a bounded set  $K$  is the                      of the measures of all bounded open sets containing the set  $K$ .  
greatest lower bound