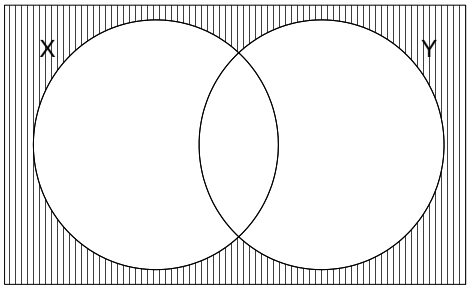
Study unit 4

Activity 4-4

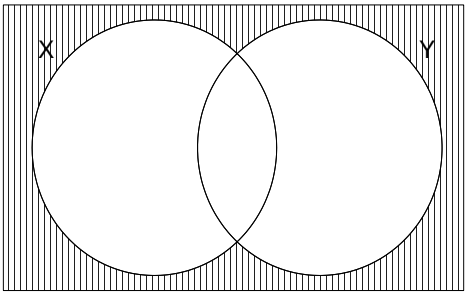
1. *Draw the following diagrams:*

1(a) $(X \cup Y)'$ (First draw a Venn diagram for $X \cup Y$.) 1(b) $X' \cap Y'$ (First draw Venn diagrams for X' and Y'.)

(X U Y)'

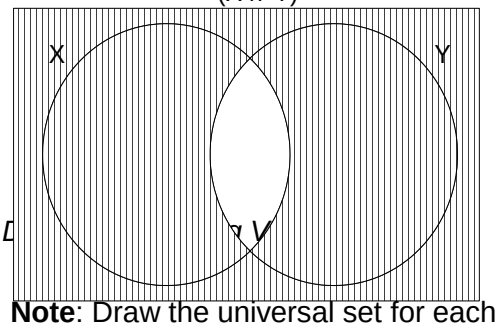


X' n Y'

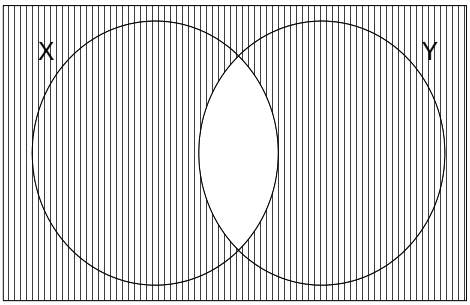


1(c) $(X \cap Y)'$ (First draw a Venn diagram for $X \cap Y$.) 1(d) $X' \cup Y'$

(X n Y)'



X' U Y'

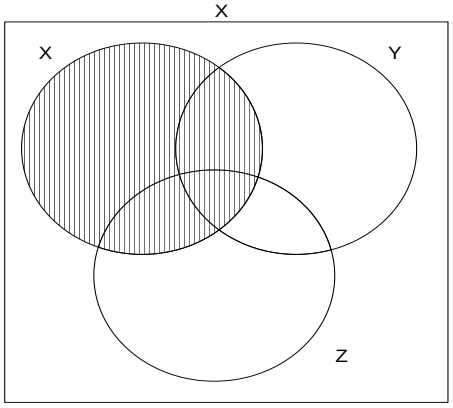


2. *D*

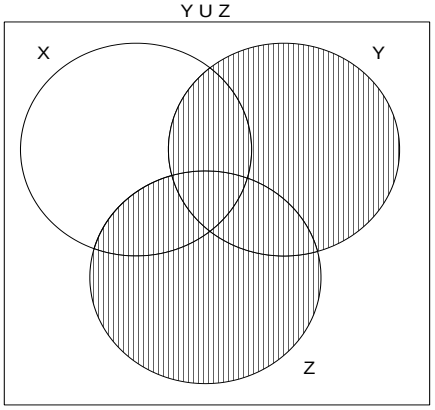
(a) **Note**: Draw the universal set for each diagram; draw all three sets in each diagram; name all three sets; provide a subscript for each diagram; colour in only the area relevant to the subscript.

$X - (Y \cup Z)$:

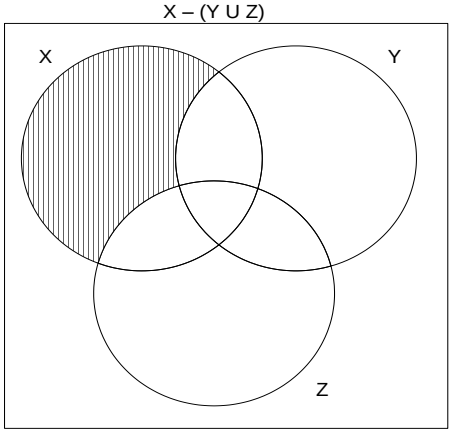
X



Y U Z

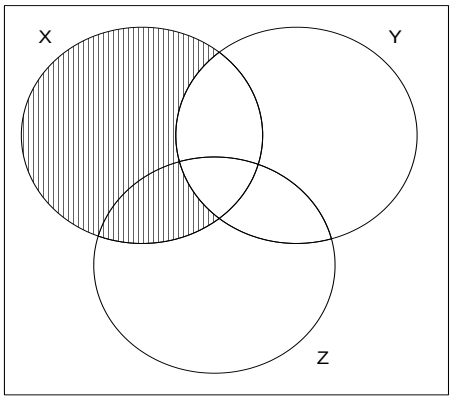


X – (Y U Z)

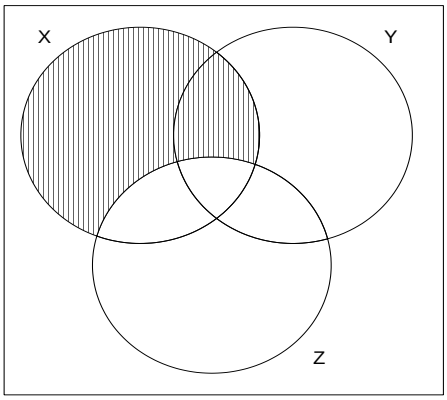


2(b) $(X-Y) \cup (X-Z)$

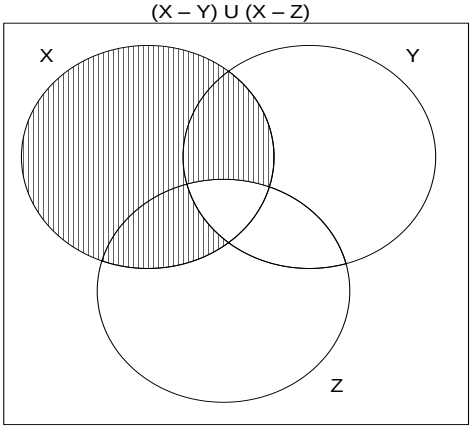
X – Y



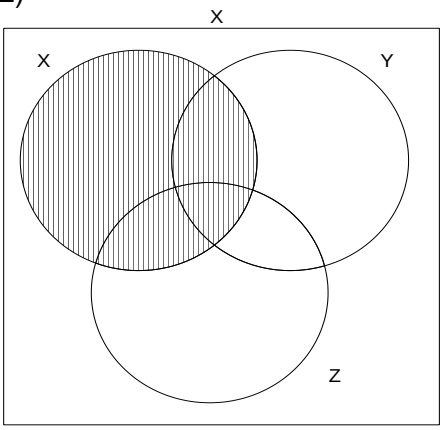
X – Z

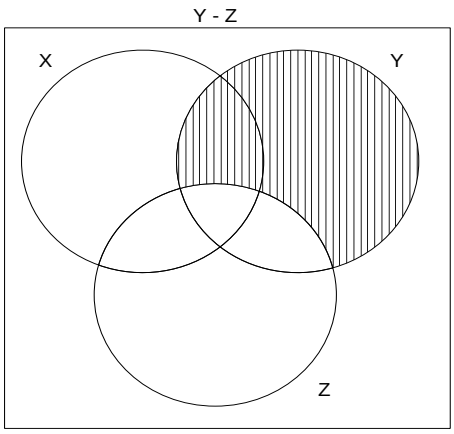


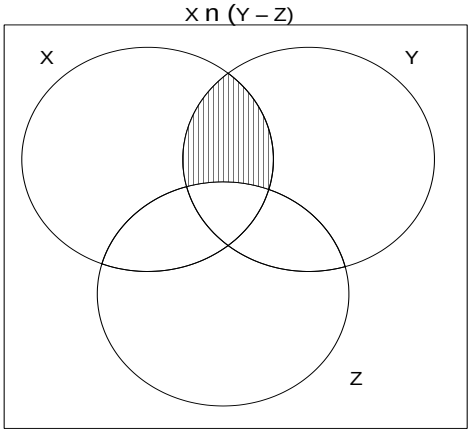
(X – Y) U (X – Z)



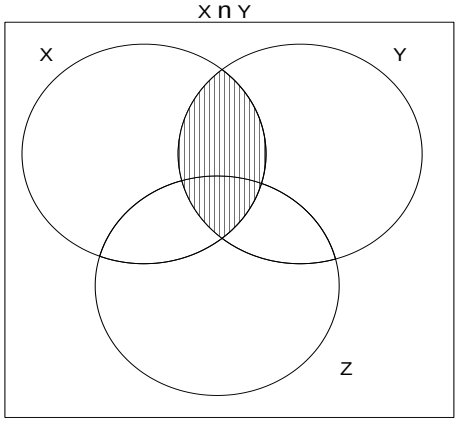
2(c) $X \cap (Y - Z)$

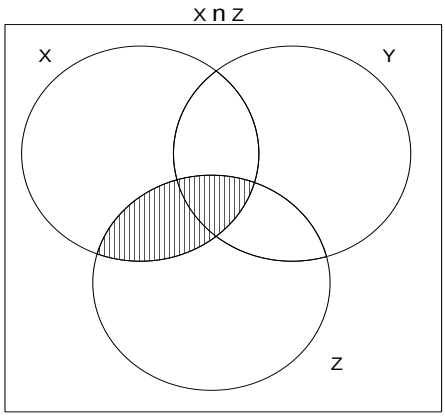


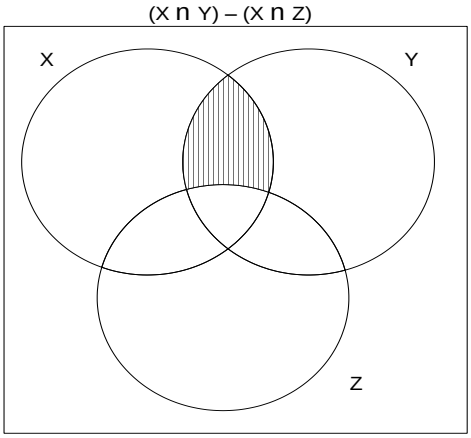




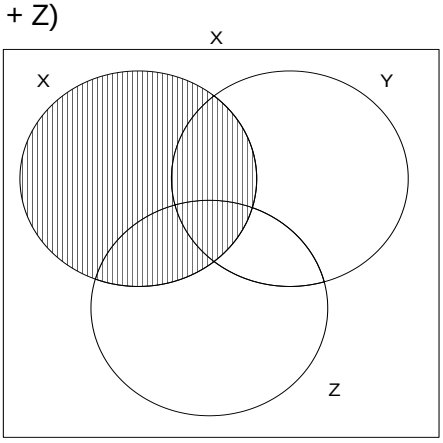
2(d) $(X \cap Y) - (X \cap Z)$

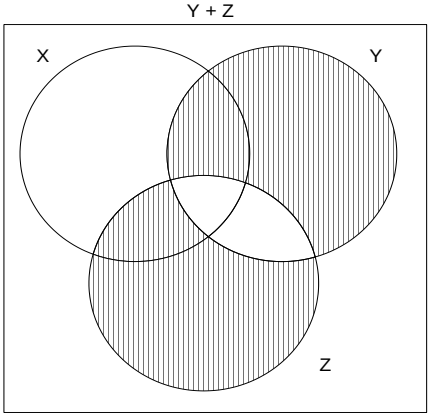


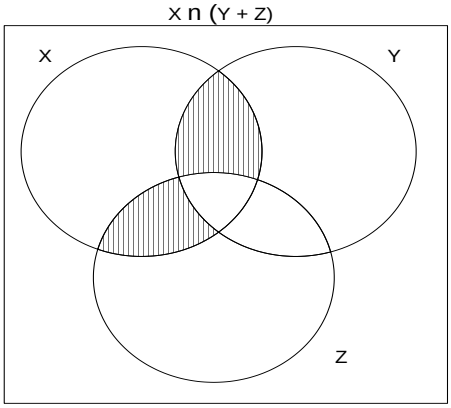
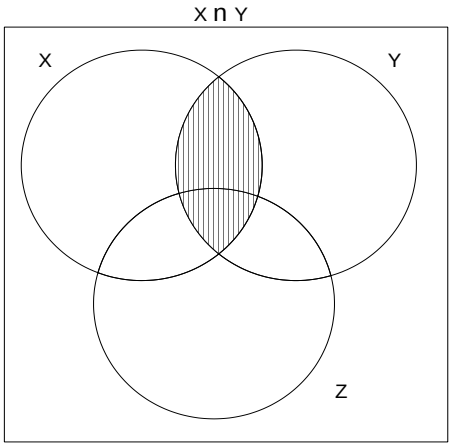
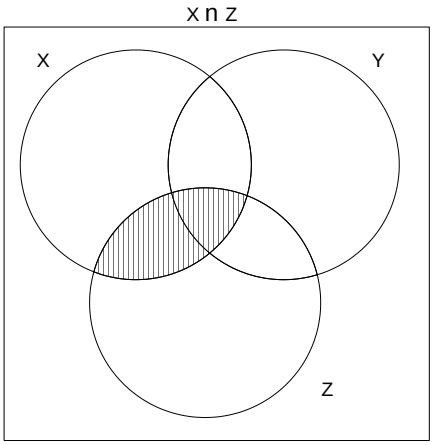
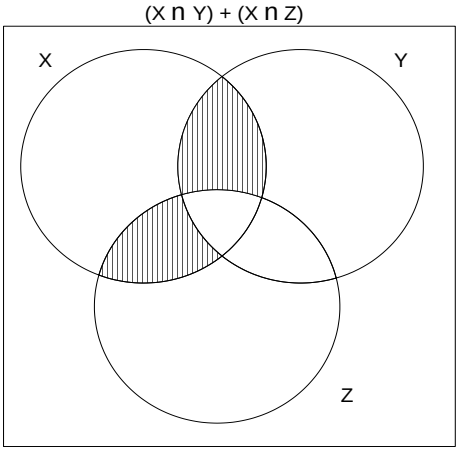




2(e) $X \cap (Y + Z)$







2(f) $(X \cap Y) + (X \cap Z)$