

Intro to Set and Set Notation

Name _____

1. Let A, B and C be three sets such that:

Set A = {2, 4, 6, 8, 10, 12}, set B = {3, 6, 9, 12, 15} and set C = {1, 4, 7, 10, 13, 16}.

Find:

(i) $A \cup B$

(v) $B \cup C$

(ii) $A \cap B$

(vi) Is $A \cup B = B \cup A$?

(iii) $B \cap A$

(vii) Is $B \cap C = B \cup C$?

(iv) $B \cup A$

(viii) $(A \cup B) \cap (A \cap B)$

2. If A = {1, 3, 7, 9, 10}, B = {2, 5, 7, 8, 9, 10}, C = {0, 1, 3, 10}, D = {2, 4, 6, 8, 10}, E = {negative natural numbers} and F = {0}

Find:

(i) $A \cup B$

(vii) $C \cap F$

(ii) $E \cup D$

(viii) $B \cap F$

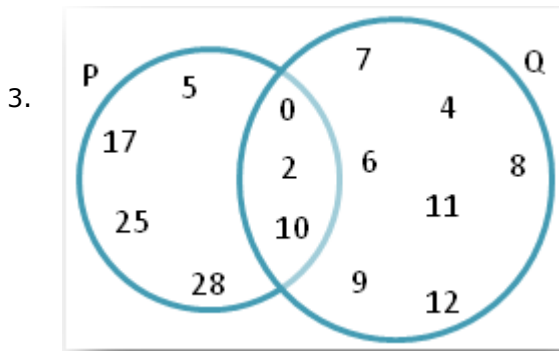
(iii) $A \cap B$

(iv) $C \cap D$

(ix) $(A \cup B) \cup (A \cap B)$

(v) $E \cap D$

(x) $(A \cup B) \cap (A \cap B)$



(i) P

(v) $(P)^c$

(ii) Q

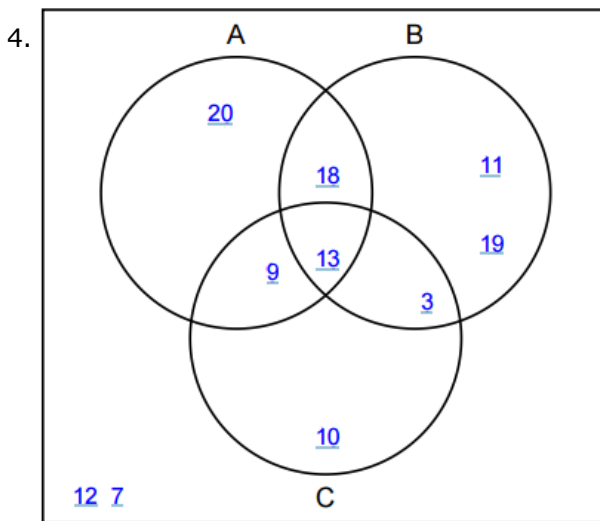
(vi) $(Q)^c$

(iii) $P \cup Q$

(vii) $\sim(P \cup Q)$

(iv) $P \cap Q$

(viii) $\sim(P \cap Q)$



a) $(A \cup B)' \cup C' =$

e) $(A \cup C)' \cup B =$

b) $B' \cup (A \cap C)' =$

f) $(B \cup C)' \cup A =$

c) $(A \cup B) \cap C =$

g) $C' \cup (A \cup B) =$

d) $B \cup (A \cap C) =$

h) $C \sim (A \sim \cap B) \sim$

