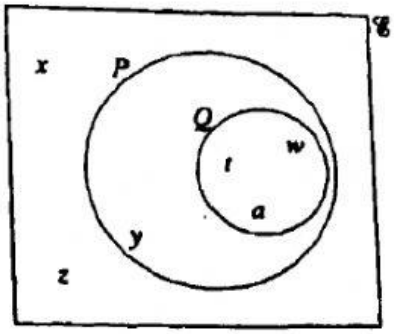
Write elements in alphabetical/numerical order with no spacing

10. The Venn diagram shows the sets P and Q contained in the universal set $\mathscr{E}$.



(a) List the elements in the set

(i) $P \cup Q$, Answer: {_____} [1]

(ii) $P \cap Q$, Answer: {_____} [1]

(iii) Q'. Answer: {_____} [1]

(b) Write down the value of

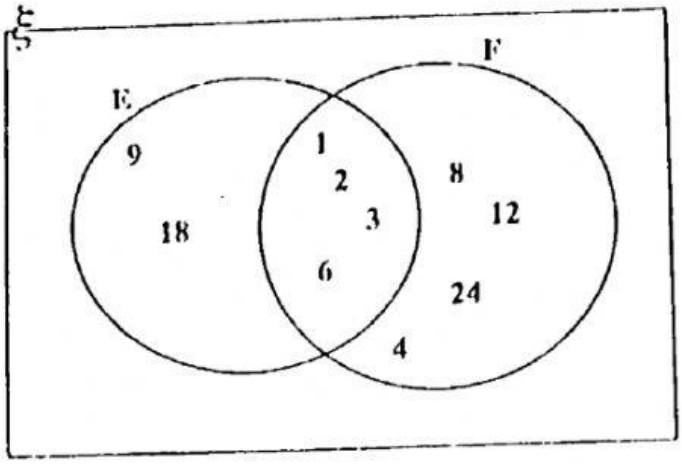
(i) $n(P)$, Answer: _____ [1]

(ii) $n(P' \cap Q')$. Answer: _____ [1]

LIVEWORKSHEETS

Write elements in alphabetical/numerical order with no spacing

11. The Venn diagram below shows the set of factors of 18 (E) and 24 (F). Use the diagram below to answer the questions.



List

(a) (i) the members of E.

Answer: {_____} [2]

(ii) the members of F only.

Answer: {_____} [2]

(iii) the common factors of 18 and 24.

Answer: _____ [2]

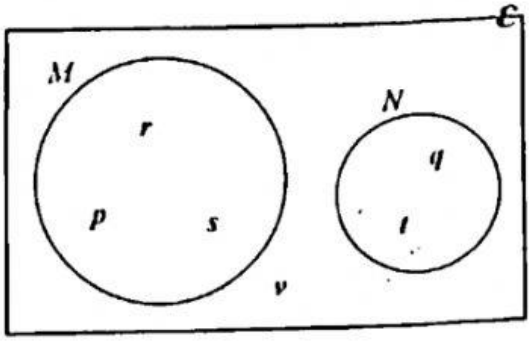
(b) Write down the HCF of 18 and 24.

Answer: _____ [1]

LIVEWORKSHEETS

Write elements in alphabetical/numerical order with no spacing

The Venn diagram shows the sets M and N contained in the universal set $\mathcal{E}$.



(a) List the elements in the set

(i) $M \cup N$,

Answer: _____ [1]

(ii) $M \cap N$,

Answer: _____ [1]

(iii) N'.

Answer: _____ [1]

(b) Write down the value of

(i) $n(M)$,

Answer: _____ [1]

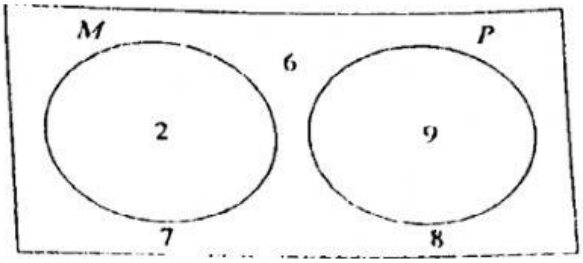
(ii) $n(M' \cap N')$.

Answer: _____ [1]

LIVEWORKSHEETS

Write elements in alphabetical/numerical order with no spacing

15. Use the Venn diagram below to answer the questions which follow.



List the member(s) of

(i) M,

Answer: {_____

(ii) P,

Answer: {_____

(iii) $M \cup P$,

Answer: {_____

(iv) $M \cap P$,

Answer: {_____

(v) M',

Answer: {_____

(vi) ε.

Answer: {_____

LIVEWORKSHEETS

Write elements in alphabetical/numerical order with no spacing

19. $\varepsilon = \{2, 4, 6, 8, 10, 12, 14\}$
$X = \{2, 4, 8, 10\}$
$Y = \{6, 8, 14\}$

(a) Using the sets above, state whether each statement is true or false.

(i) $8 \notin Y$

Answer: _____ [1]

(ii) $\{4, 6\} \subseteq X$

Answer: _____ [1]

(b) List the members of

(i) $X \cup Y$

Answer: _____ [1]

(ii) Y'

Answer: _____ [2]

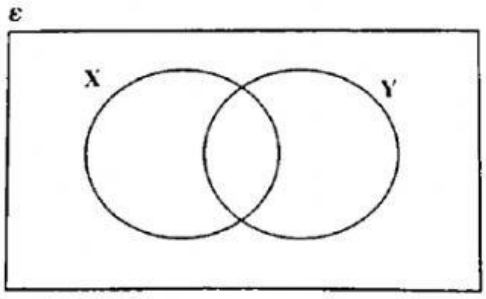
(iii) $n(x)'$

Answer: _____ [2]

(iv) $X \cap Y$

Answer: _____ [1]

(c) Complete the Venn diagram, writing each member of **X** and **Y** in the correct region.

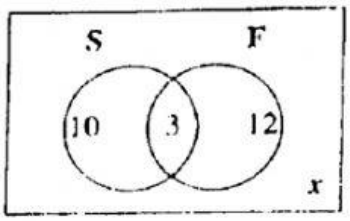


Answer: _____ [4]

LIVEWORKSHEETS

Write elements in alphabetical/numerical order with no spacing

The Venn diagram represents 30 students of grade 9 who study Spanish (S) and French (F).



(i) Calculate the value of x.

Answer: _____ [2]

(ii) How many students study both Spanish and French?

Answer: _____ [1]

(iii) How many students study Spanish?

Answer: _____ [2]

LIVEWORKSHEETS