## Mastery Q 11.2

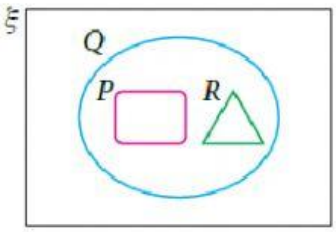
*Open the folder downloaded from page vii for extra questions of Mastery Q 11.2.*

**1.** Given that $\xi$ = {whole numbers which are less than 10}, $A$ = {factors of 18} and $B$ = {0, 4, 5, 7, 8}. With the help of a Venn diagram, determine whether $A' = B$. ☐

**2.** Based on the Venn diagram, state the relationship between

(a) $P$ ☐ $Q$,

(b) $Q$ ☐ $R$.




**3.** Given that $K$ = {perfect squares which are less than 20},

(a) write all the possible subsets of $K$.

(b) if $L$ = {1, 2, 3, ..., 20}, draw a Venn diagram to represent the relationship between $K$ and $L$.

Fill in every subset in ascending order

(a) ∅, {☐}, {☐}, {☐}, {☐}, { 1 , ☐}, { 1 , ☐}, { 1 , ☐},
{ 4 , ☐}, { 4 , ☐}, { 9 , ☐}, { 1 , ☐, ☐},
{ 1 , ☐, 16 }, { 4 , ☐, ☐}, {☐, ☐, ☐, ☐}

(b) Select the Venn diagram that represents the relationship between K and L. ☐

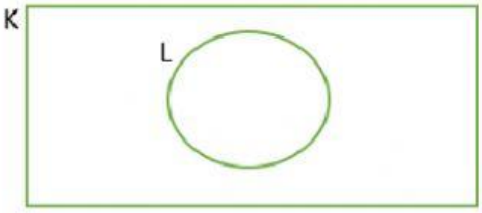



Diagram 1

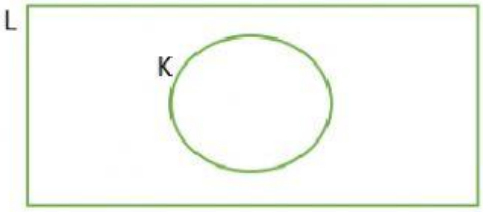



Diagram 2

**4.** In a class, some of the girls wear spectacles while all of the boys do not wear spectacles. Sets $\xi$, $P$, $Q$ and $R$ are defined as follows:

$\xi$ = {students in the class}

$P$ = {girls}

$Q$ = {boys}

$R$ = {students who wear spectacles}

Represent the relationship between sets $\xi$, $P$, $Q$ and $R$, using a Venn diagram.

LIVEWORKSHEETS

Select the Venn diagram that represents the relationship in Question 4. ☐

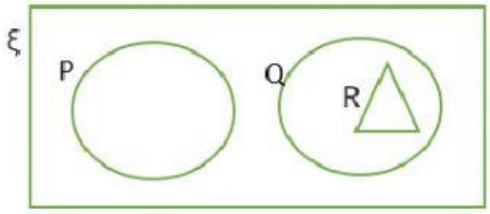



Diagram 1

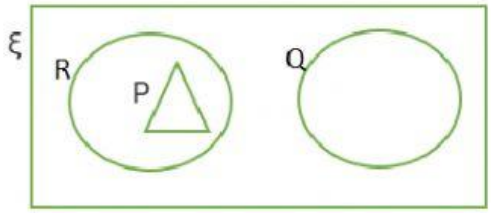



Diagram 2

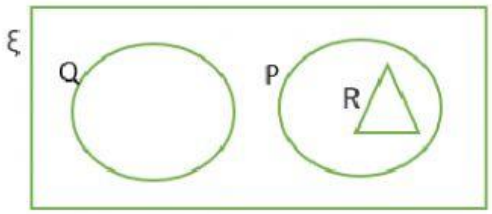



Diagram 3

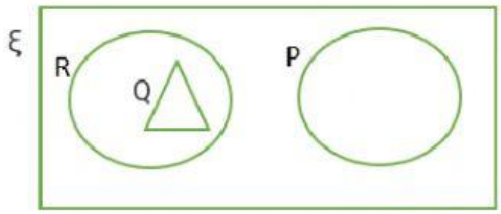
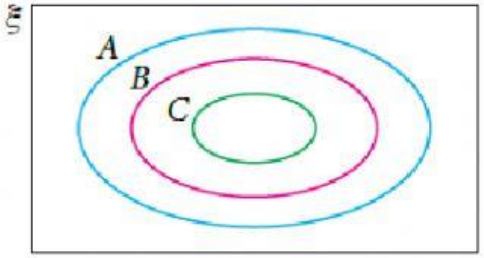



Diagram 4

**5.**




Based on the Venn diagram, write the relationship between sets ξ, $A$, $B$ and $C$.

C ☐ B ☐ A ☐ ξ

ξ ☐ A ☐ B ☐ C

LIVEWORKSHEETS