Perform the below mention boolean algebraic operation for the given set of elements.

1) A \( \cap \) B

\[
\begin{align*}
A & = \{1, 4, 6, 7, 8, 10, 11, 13, 14, 15, 16, 18, 19, 20, 21, 22\} \\
B & = \{4, 6, 7, 8, 10, 11, 13, 14, 15, 16, 18, 20, 21, 22\}
\end{align*}
\]

\[
\begin{align*}
i) \quad B' \cap C' & = \quad \phantom{0}
\end{align*}
\]

\[
\begin{align*}
ii) \quad B' & = \quad \phantom{0}
\end{align*}
\]

\[
\begin{align*}
iii) \quad A \cup C & = \quad \phantom{0}
\end{align*}
\]

2) A \( \cup \) C

\[
\begin{align*}
A & = \{4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20\} \\
B & = \{4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20\}
\end{align*}
\]

\[
\begin{align*}
\text{Cuboid} & \quad \text{Oval} \\
\text{Cube} & \quad \text{Square} \\
\text{Rectangle} & \quad \text{Cylinder} \\
\text{Cone} & \\
\end{align*}
\]

3) November A

\[
\begin{align*}
A & = \{4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20\} \\
B & = \{4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20\}
\end{align*}
\]

\[
\begin{align*}
\text{August} & \quad \text{May} \\
\text{July} & \quad \text{June} \\
\text{October} & \quad \text{March}
\end{align*}
\]

4) Stork A \( \cap \) B

\[
\begin{align*}
A & = \{4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20\} \\
B & = \{4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20\}
\end{align*}
\]

\[
\begin{align*}
i) \quad B \cap C & = \quad \phantom{0}
\end{align*}
\]

\[
\begin{align*}
ii) \quad A \cap B' & = \quad \phantom{0}
\end{align*}
\]

\[
\begin{align*}
iii) \quad A' & = \quad \phantom{0}
\end{align*}
\]

Printable Math Worksheets @ www.mathworksheets4kids.com
Perform the below mention boolean algebraic operation for the given set of elements.

1) A ∪ B

- i) B' ∪ C = \{1, 2, 4, 5, 6, 7, 9, 12, 13, 14, 16, 17\}
- ii) B' = \{1, 2, 4, 5, 6, 7, 12, 13, 14, 17\}
- iii) A ∪ C = \{1, 2, 6, 7, 8, 9, 13, 16, 17, 18\}

2) A

- Cuboid
- Oval
- Star
- Cube
- Square
- Circle

3) November

- A
- October
- August
- May
- June
- July
- March

4) Stork

- Crane
- Dove
- Goose
- Owl
- Swan
- Gulls
- Sparrow
- Pelican

- i) B ∩ C = \{Owl, Swan\}
- ii) A ∩ B' = \{Crane, Gulls\}
- iii) A = \{Crane, Dove, Gulls, Owl\}