

10 Express formally and succinctly that exactly one of three statements is true.

After trying the question, scroll down to the solution.

Solutions

$$\begin{aligned} \S & a \wedge \neg b \wedge \neg c \vee \neg a \wedge b \wedge \neg c \vee \neg a \wedge \neg b \wedge c \\ \text{or} & a=(b=c) \wedge \neg(a \wedge b \wedge c) \\ \text{or} & (a=b)=c \wedge \neg(a \wedge b \wedge c) \\ \text{or} & a=(b=c) \wedge \neg(a=b=c) \\ \text{or} & (a=b)=c \wedge \neg(a=b=c) \end{aligned}$$