|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| * A
 | * B
 | * C
 | * (B+C)
 | * A\*(B+C)
 |
| * 0
 | * 0
 | * 0
 | * 0
 | * 0
 |
| * 0
 | * 0
 | * 1
 | * 1
 | * 0
 |
| * 0
 | * 1
 | * 0
 | * 1
 | * 0
 |
| * 0
 | * 1
 | * 1
 | * 1
 | * 0
 |
| * 1
 | * 0
 | * 0
 | * 0
 | * 0
 |
| * 1
 | * 0
 | * 1
 | * 1
 | * 1
 |
| * 1
 | * 1
 | * 0
 | * 1
 | * 1
 |
| * 1
 | * 1
 | * 1
 | * 1
 | * 1
 |

Use a truth table to show that : A\*(B+C)=A\*B+A\*C

A\*(B+C)

A\*B+A\*C

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| A | B | C | A\*B | A\*C | A\*B+A\*C |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 |