

15:AS
 $s = a + b;$

```
graph TD; A([15:AS  
s = a + b;]) --> B([16:AS  
overflow = ~a[7] & b[7] & s[7] | a[7] & ~b[7] & ~s[7] | a[7] & b[7] & s[7];]);
```

16:AS
 $\text{overflow} = \sim a[7] \& b[7] \& s[7] \mid a[7] \& \sim b[7] \& \sim s[7] \mid a[7] \& b[7] \& s[7];$