```
%a.addr = alloca [100 x i32]*, align 8
       %b.addr = alloca [100 \text{ x i} 32]*, align 8
            %i.addr = alloca i32, align 4
            %j.addr = alloca i32, align 4
             %tmp = alloca i32, align 4
              %k = alloca i32, align 4
store [100 x i32]* %a, [100 x i32]** %a.addr, align 8
store [100 x i32]* %b, [100 x i32]** %b.addr, align 8
         store i32 %i, i32* %i.addr, align 4
         store i32 %j, i32* %j.addr, align 4
           store i32 0, i32* %tmp, align 4
            store i32 0, i32* %k, align 4
                 br label %for.cond
```

```
for.body:
                                                      ; preds = %for.cond
                     %1 = load [100 \times i32]^*, [100 \times i32]^{**} %a.addr, align 8
                              %2 = load i32, i32* %i.addr, align 4
                                 %idxprom = sext i32 %2 to i64
        %arrayidx = getelementptr inbounds [100 x i32], [100 x i32]* %1, i64 %idxprom
                                %3 = load i32, i32* %k, align 4
                                %idxprom1 = sext i32 %3 to i64
%arrayidx2 = getelementptr inbounds [100 x i32], [100 x i32]* %arrayidx, i64 0, i64 %idxprom1
                            %4 = load i32, i32* %arrayidx2, align 4
                     %5 = load [100 \times i32]^*, [100 \times i32]^{**} %b.addr, align 8
                                \%6 = \text{load i} 32, i 32* \%k, align 4
                                %idxprom3 = sext i32 %6 to i64
       %arrayidx4 = getelementptr inbounds [100 x i32], [100 x i32]* %5, i64 %idxprom3
                              %7 = load i32, i32* %j.addr, align 4
                                %idxprom5 = sext i32 %7 to i64
%arrayidx6 = getelementptr inbounds [100 x i32], [100 x i32]* %arrayidx4, i64 0, i64 %idxprom5
                            %8 = load i32, i32* %arrayidx6, align 4
                                 %mul = mul nsw i32 %4, %8
                               %9 = load i32, i32* %tmp, align 4
                                %add = add nsw i32 %9, %mul
                               store i32 %add, i32* %tmp, align 4
                                       br label %for.inc
```

[0/1]
for.inc:
; preds = %for.body
%10 = load i32, i32* %k, align 4
%inc = add nsw i32 %10, 1
store i32 %inc, i32* %k, align 4
br label %for.cond

[2/3]
for.end: ; preds = %for.cond
%11 = load i32, i32* %tmp, align 4
ret i32 %11