```
entry:
%retval = alloca i32, align 4
%A = alloca [10 x i32], align 16
%B = alloca [10 x i32], align 16
%i = alloca i32, align 4
%j = alloca i32, align 4
store i32 0, i32* %retval, align 4
\%0 = \text{bitcast} [10 \times i32] * \% A \text{ to } i8 *
call void @llvm.memcpy.p0i8.p0i8.i64(i8* align 16 %0, i8* align 16 bitcast
... ([10 x i32]* @__const.main.A to i8*), i64 40, i1 false)
%1 = bitcast [10 x i32] * %B to i8*
call void @llvm.memset.p0i8.i64(i8* align 16 %1, i8 0, i64 40, i1 false)
store i32 0, i32* %j, align 4
store i32 0, i32* %i, align 4
br label %for.cond
           for.cond:
            %2 = load i32, i32* %i, align 4
            %cmp = icmp slt i32 %2, 10
           br i1 %cmp, label %for.body, label %for.end, !prof!34
                                                        F
                          90.91%
                                                                                                                               9.09%
                                          for.body:
                                           %3 = load i32, i32* %j, align 4
                                           %idxprom = sext i32 \%3 to i64
                                           %arrayidx = getelementptr inbounds [10 x i32], [10 x i32]* %A, i64 0, i64
                                          ... %idxprom
                                           %4 = load i32, i32* %arrayidx, align 4
                                           %mul = mul nsw i32 %4, 23
                                           %5 = load i32, i32* %i, align 4
                                           %add = add nsw i32 %mul, %5
                                           %6 = load i32, i32* %i, align 4
                                           %idxprom1 = sext i32 \%6 to i64
                                           % \operatorname{arrayidx2} = \operatorname{getelementptr} \operatorname{inbounds} [10 \times i32], [10 \times i32] * \%B, i64 0, i64
                                          ... %idxprom1
                                           store i32 %add, i32* %arrayidx2, align 4
                                           \%7 = \text{load i}32, i32*\%i, align 4
                                           %idxprom3 = sext i32 %7 to i64
                                           % \operatorname{arrayidx} 4 = \operatorname{getelementptr} in \text{bounds} [10 \times i32], [10 \times i32] * \% B, i64 0, i64
                                           ... %idxprom3
                                                                                                                                      for.end:
                                           %8 = load i32, i32* %arrayidx4, align 4
                                                                                                                                      ret i32 0
                                           %9 = load i32, i32* %j, align 4
                                           %idxprom5 = sext i32 \%9 to i64
                                           % \operatorname{arrayidx} 6 = \operatorname{getelementptr} in \text{bounds} [10 \times i32], [10 \times i32] * \% A, i64 0, i64
                                           ... %idxprom5
                                           %10 = load i32, i32* %arrayidx6, align 4
                                           %add7 = add nsw i32 %8, %10
                                           %add8 = add nsw i32 %add7, 7
                                           %11 = load i32, i32* %i, align 4
                                           %idxprom9 = sext i32 %11 to i64
                                           % \operatorname{arrayidx} 10 = \operatorname{getelementptr} in bounds [10 x i32], [10 x i32] * %B, i64 0, i64
                                          ... %idxprom9
                                           store i32 %add8, i32* %arrayidx10, align 4
                                           %12 = load i32, i32* %i, align 4
                                           %rem = srem i32 %12, 8
                                           %cmp11 = icmp eq i32 %rem, 0
                                           br i1 %cmp11, label %if.then, label %if.end, !prof!35
                                                                                                           F
                                                                20.00%
                                                    if.then:
                                                    %13 = load i32, i32* %i, align 4
                                                                                                          80.00%
                                                    store i32 %13, i32* %j, align 4
                                                     br label %if.end
                                          if.end:
                                           %14 = load i32, i32* %i, align 4
                                           %idxprom12 = sext i32 %14 to i64
                                           % \operatorname{arrayidx} 13 = \operatorname{getelementptr} \operatorname{inbounds} [10 \times i32], [10 \times i32] * \% B, i64 0, i64
                                           ... %idxprom12
                                           %15 = load i32, i32* %arrayidx13, align 4
                                           %call = call i32 (i8*, ...) @printf(i8* noundef getelementptr inbounds ([4 x
                                           ... i8], [4 x i8]* @.str, i64 0, i64 0), i32 noundef %15)
                                           br label %for.inc
                   for.inc:
                    %16 = load i32, i32* %i, align 4
                    %inc = add nsw i32 %16, 1
```

store i32 %inc, i32* %i, align 4 br label %for.cond, !llvm.loop !36