```
%branch.addr = alloca i32, align 4
%i.addr = alloca i32, align 4
%A = alloca [10 x i32], align 16
%k = alloca i32, align 4
%result = alloca i32, align 4
store i32 %branch, i32* %branch.addr, align 4
call void @llvm.dbg.declare(metadata i32* %branch.addr, metadata !289,
.. metadata !DIExpression()), !dbg !290
%branch.addr1 = bitcast i32* %branch.addr to i8*
call void @llvm.var.annotation(i8* %branch.addr1, i8* getelementptr inbounds
... ([7 x i8], [7 x i8]* @.str, i32 0, i32 0), i8* getelementptr inbounds ([21 x
... i8], [21 x i8]* @.str.1, i32 0, i32 0), i32 8, i8* null)
store i32 %i, i32* %i.addr, align 4
call void @llvm.dbg.declare(metadata i32* %i.addr, metadata !291, metadata
... !DIExpression()), !dbg !292
call void @llvm.dbg.declare(metadata [10 x i32]* %A, metadata !293, metadata
... !DIExpression()), !dbg !297
\%0 = \text{bitcast} [10 \times i32]^* \% \text{A to } i8^*, !dbg !297
call void @llvm.memcpy.p0i8.p0i8.i64(i8* align 16 %0, i8* align 16 bitcast
... ([10 x i32]* @ const. Z12targetBranchii.A to i8*), i64 40, i1 false), !dbg
call void @llvm.dbg.declare(metadata i32* %k, metadata !298, metadata
...!DIExpression()),!dbg!299
%1 = load i32, i32* %branch.addr, align 4, !dbg !300
%idxprom = sext i32 %1 to i64, !dbg !301
%arrayidx = getelementptr inbounds [10 x i32], [10 x i32]* %A, i64 0, i64
... %idxprom, !dbg !301
\%2 = load i32, i32* \%arrayidx, align 4, !dbg !301
store i32 %2, i32* %k, align 4, !dbg !299
call void @llvm.dbg.declare(metadata i32* %result, metadata !302, metadata
...!DIExpression()),!dbg!303
store i32 0, i32* %result, align 4, !dbg !303
%3 = load i32, i32* %k, align 4, !dbg !304
switch i32 %3, label %sw.default [
i32 0, label %sw.bb
i32 1, label %sw.bb5
i32 2, label %sw.bb21
], !dbg !305, !prof !306
        def
```

%4 = alloca i32, align 4, !dbg !307 %5 = load i32, i32* %4, align 4, !dbg !307 %6 = alloca i32, align 4, !dbg !307 %7 = load i32, i32* %6, align 4, !dbg !307 %8 = alloca i32, align 4, !dbg !307 %9 = load i32, i32* %8, align 4, !dbg !307 %10 = alloca i32, align 4, !dbg !307 %11 = load i32, i32* %10, align 4, !dbg !307 %12 = alloca i32, align 4, !dbg !307 %13 = load i32, i32* %12, align 4, !dbg !307 %14 = alloca i32, align 4, !dbg !307 %15 = load i32, i32* %14, align 4, !dbg !307 %16 = alloca i32, align 4, !dbg !307 %17 = load i32, i32* %16, align 4, !dbg !307 %18 = alloca i32, align 4, !dbg !307 sw.default: %19 = load i32, i32* %18, align 4, !dbg !307 %20 = alloca i32, align 4, !dbg !307 %21 = load i32, i32* %20, align 4, !dbg !307 %64 = alloca i32, align 4, !dbg !355 %65 = load i32, i32* %64, align 4, !dbg !355 %66 = alloca i32, align 4, !dbg !355 %67 = load i32, i32* %66, align 4, !dbg !355 %22 = alloca i32, align 4, !dbg !307 %23 = load i32, i32* %22, align 4, !dbg !307 %68 = alloca i32, align 4, !dbg !355 %69 = load i32, i32* %68, align 4, !dbg !355 %24 = mul i32 %23, 42, !dbg !307 %pgocount = load i64, i64* getelementptr inbounds ([4 x i64], [4 x i64]* ... @__profc__Z12targetBranchii, i64 0, i64 2), align 8, !dbg !307 %25 = add i64 %pgocount, 1, !dbg !307 %70 = alloca i32, align 4, !dbg !355 %71 = load i32, i32* %70, align 4, !dbg !355 %pgocount3 = load i64, i64* getelementptr inbounds ($[4 \times i64]$, $[4 \times i64]$ * store i64 %25, i64* getelementptr inbounds ([4 x i64], [4 x i64]* ... @_profc_Z12targetBranchii, i64 0, i64 2), align 8, !dbg !307 %26 = load i32, i32* %result, align 4, !dbg !307 . @ profc Z12targetBranchii, i64 0, i64 3), align 8, !dbg !355 %72 = add i64 %pgocount3, 1, !dbg !355 store i64 %72, i64* getelementptr inbounds ([4 x i64], [4 x i64]* %div = sdiv i32 %26, 3, !dbg !307 store i32 %div, i32* %result, align 4, !dbg !307 %27 = load i32, i32* %i.addr, align 4, !dbg !309 ... @_profc_Z12targetBranchii, i64 0, i64 3), align 8, !dbg !355 store i32 -1, i32* %result, align 4, !dbg !355 br label %sw.epilog, !dbg !356 %rem = srem i32 %27, 14, !dbg !310 %mul = mul nsw i32 %rem, 243, !dbg !311 %28 = load i32, i32* %result, align 4, !dbg !312 %xor = xor i32 %28, %mul, !dbg !312 store i32 %xor, i32* %result, align 4, !dbg !312 %29 = load i32, i32* %i.addr, align 4, !dbg !313 %rem2 = srem i32 %29, 10, !dbg !314 %idxprom3 = sext i32 %rem2 to i64, !dbg !315 %arrayidx4 = getelementptr inbounds [10 x i32], [10 x i32]* %A, i64 0, i64 .. %idxprom3, !dbg !315 %30 = load i32, i32* %arrayidx4, align 4, !dbg !315 %31 = load i32, i32* %result, align 4, !dbg !316 %add = add nsw i32 %31, %30, !dbg !316 store i32 %add, i32* %result, align 4, !dbg !316 br label %sw.epilog, !dbg !317

sw.bb5: %32 = alloca i32, align 4, !dbg !318 store volatile i32 42, i32* %32, align 4, !dbg !318 %33 = alloca i32, align 4, !dbg !318 store volatile i32 42, i32* %33, align 4, !dbg !318 %pgocount1 = load i64, i64* getelementptr inbounds ([4 x i64], [4 x i64]* ... @__profc_Z12targetBranchii, i64 0, i64 0), align 8, !dbg !318 %34 = add i64 %pgocount1, 1, !dbg !318 store i64 %34, i64* getelementptr inbounds ([4 x i64], [4 x i64]* ... @_profc_Z12targetBranchii, i64 0, i64 0), align 8, !dbg !318 %35 = load i32, i32* %i.addr, align 4, !dbg !318 %rem6 = srem i32 %35, 5, !dbg !319 %mul7 = mul nsw i32 %rem6, 9, !dbg !320 %36 = load i32, i32* %result, align 4, !dbg !321 %add8 = add nsw i32 %36, %mul7, !dbg !321 store i32 %add8, i32* %result, align 4, !dbg !321 %37 = load i32, i32* %i.addr, align 4, !dbg !322 %shr = ashr i32 %37, 3, !dbg !323 %38 = load i32, i32* %result, align 4, !dbg !324 %xor9 = xor i32 %38, %shr, !dbg !324 store i32 %xor9, i32* %result, align 4, !dbg !324 %39 = load i32, i32* %result, align 4, !dbg !325 %mul10 = mul nsw i32 %39, 2, !dbg !325 store i32 %mul10, i32* %result, align 4, !dbg !325 %40 = load i32, i32* %i.addr, align 4, !dbg !326 %mul11 = mul nsw i32 %40, 2, !dbg !326 store i32 %mul11, i32* %i.addr, align 4, !dbg !326 %41 = load i32, i32* %i.addr, align 4, !dbg !327 %rem12 = srem i32 %41, 14, !dbg !328 %mul13 = mul nsw i32 %rem12, 243, !dbg !329 %42 = load i32, i32* %result, align 4, !dbg !330 %xor14 = xor i32 %42, %mul13, !dbg !330 store i32 %xor14, i32* %result, align 4, !dbg !330 %43 = load i32, i32* %result, align 4, !dbg !331 %div15 = sdiv i32 %43, 3, !dbg !332 store i32 %div15, i32* %i.addr, align 4, !dbg !333 %44 = load i32, i32* %i.addr, align 4, !dbg !334 %rem16 = srem i32 %44, 5, !dbg !335 %mul17 = mul nsw i32 %rem16, 9, !dbg !336 %45 = load i32, i32* %result, align 4, !dbg !337 %add18 = add nsw i32 %45, %mul17, !dbg !337 store i32 %add18, i32* %result, align 4, !dbg !337 %46 = load i32, i32* %i.addr, align 4, !dbg !338 %shr19 = ashr i32 %46, 1, !dbg !339 %47 = load i32, i32* %result, align 4, !dbg !340 %xor20 = xor i32 %47, %shr19, !dbg !340 store i32 %xor20, i32* %result, align 4, !dbg !340 br label %sw.epilog, !dbg !341

sw.bb21: %48 = alloca i32, align 4, !dbg !342 store volatile i32 42, i32* %48, align 4, !dbg !342 %49 = alloca i32, align 4, !dbg !342 store volatile i32 42, i32* %49, align 4, !dbg !342 %50 = alloca i32, align 4, !dbg !342 store volatile i32 42, i32* %50, align 4, !dbg !342 %51 = alloca i32, align 4, !dbg !342 store volatile i32 42, i32* %51, align 4, !dbg !342 %52 = alloca i32, align 4, !dbg !342 store volatile i32 42, i32* %52, align 4, !dbg !342 %53 = alloca i32, align 4, !dbg !342 store volatile i32 42, i32* %53, align 4, !dbg !342 %54 = alloca i32, align 4, !dbg !342 store volatile i32 42, i32* %54, align 4, !dbg !342 %pgocount2 = load i64, i64* getelementptr inbounds ([4 x i64], [4 x i64]* ... @__profc__Z12targetBranchii, i64 0, i64 1), align 8, !dbg !342 %55 = add i64 %pgocount2, 1, !dbg !342 store i64 %55, i64* getelementptr inbounds ([4 x i64], [4 x i64]* ... @_profc_Z12targetBranchii, i64 0, i64 1), align 8, !dbg !342 %56 = load i32, i32* %i.addr, align 4, !dbg !342 %rem22 = srem i32 %56, 7, !dbg !343 %mul23 = mul nsw i32 %rem22, 91, !dbg !344 %57 = load i32, i32* %result, align 4, !dbg !345 %add24 = add nsw i32 %57, %mul23, !dbg !345 store i32 %add24, i32* %result, align 4, !dbg !345 %58 = load i32, i32* %i.addr, align 4, !dbg !346 %shr25 = ashr i32 %58, 2, !dbg !347 %59 = load i32, i32* %result, align 4, !dbg !348 %xor26 = xor i32 %59, %shr25, !dbg !348 store i32 %xor26, i32* %result, align 4, !dbg !348 %60 = load i32, i32* %i.addr, align 4, !dbg !349 %rem27 = srem i32 %60, 5, !dbg !350 %idxprom28 = sext i32 %rem27 to i64, !dbg !351 %arrayidx29 = getelementptr inbounds [10 x i32], [10 x i32]* %A, i64 0, i64 ... %idxprom28, !dbg !351 %61 = load i32, i32* %arrayidx29, align 4, !dbg !351 %62 = load i32, i32* %result, align 4, !dbg !352 %sub = sub nsw i32 %62, %61, !dbg !352 store i32 %sub, i32* %result, align 4, !dbg !352 %63 = load i32, i32* %result, align 4, !dbg !353 %div30 = sdiv i32 %63, 3, !dbg !353 store i32 %div30, i32* %result, align 4, !dbg !353 br label %sw.epilog, !dbg !354

sw.epilog: %73 = load i32, i32* %result, align 4, !dbg !357 ret i32 %73, !dbg !358

CFG for 'Z12targetBranchii' function