```
entry:
 %call.i = call i32 @rand() #7
 %rem.i = srem i32 %call.i, 5
 %call.i9 = call i32 @rand() #7
 %rem.i10 = srem i32 %call.i9, 5
 %new_alloca_1 = alloca i32, align 4
 %new_alloca_2 = alloca i32, align 4
 %0 = add i32 %rem.i10, %rem.i
 %1 = mul i32 %rem.i10, %rem.i
 %equals_compare = icmp eq i32 %0, %1
 br i1 %equals_compare, label %2, label %3
```
| T | F |
|---|---|

```
%2:
2:
 store i32 %0, i32* %new_alloca_1, align 4
 br label %4
```

```
%3:
3:
 store i32 %1, i32* %new_alloca_2, align 4
 br label %4
```

```
%4:
4:
 %add = add nsw i32 %rem.i10, %rem.i
 %call3 = call nonnull align 8 dereferenceable(8)
... %"class.std::basic_ostream"* @_ZNSolsEi(%"class.std::basic_ostream"* nonnull
... align 8 dereferenceable(8) @_ZSt4cout, i32 %add)
 %5 = bitcast %"class.std::basic_ostream"* %call3 to i8**
 %vtable.i = load i8*, i8** %5, align 8, !tbaa !3
 %vbase.offset.ptr.i = getelementptr i8, i8* %vtable.i, i64 -24
 %6 = bitcast i8* %vbase.offset.ptr.i to i64*
 %vbase.offset.i = load i64, i64* %6, align 8
 %7 = bitcast %"class.std::basic_ostream"* %call3 to i8*
 %_M_ctype.i.idx.i = add nsw i64 %vbase.offset.i, 240
 %_M_ctype.i.i = getelementptr inbounds i8, i8* %7, i64 %_M_ctype.i.idx.i
 %8 = bitcast i8* %_M_ctype.i.i to %"class.std::ctype"**
 %9 = load %"class.std::ctype"*, %"class.std::ctype"** %8, align 8, !tbaa !6
 %tobool.not.i.i.i = icmp eq %"class.std::ctype"* %9, null
 br i1 %tobool.not.i.i.i, label %if.then.i.i.i, label
... %_ZSt13__check_facetISt5ctypeIcEERKT_PS3_.exit.i.i
```
| T | F |
|---|---|

```
if.then.i.i.i:
 call void @_ZSt16__throw_bad_castv() #8
 unreachable
```

```
_ZSt13__check_facetISt5ctypeIcEERKT_PS3_.exit.i.i:
 %_M_widen_ok.i.i.i = getelementptr inbounds %"class.std::ctype",
... %"class.std::ctype"* %9, i64 0, i32 8
 %10 = load i8, i8* %_M_widen_ok.i.i.i, align 8, !tbaa !11
 %tobool.not.i3.i.i = icmp eq i8 %10, 0
 br i1 %tobool.not.i3.i.i, label %if.end.i.i.i, label %if.then.i4.i.i
```
| T | F |
|---|---|

```
if.end.i.i.i:
 call void @_ZNKSt5ctypeIcE13_M_widen_initEv(%"class.std::ctype"* nonnull
... align 8 dereferenceable(570) %9)
 %12 = bitcast %"class.std::ctype"* %9 to i8 (%"class.std::ctype"*, i8)***
 %vtable.i.i.i = load i8 (%"class.std::ctype"*, i8)**, i8
... (%"class.std::ctype"*, i8)*** %12, align 8, !tbaa !3
 %vfn.i.i.i = getelementptr inbounds i8 (%"class.std::ctype"*, i8)*, i8
... (%"class.std::ctype"*, i8)** %vtable.i.i.i, i64 6
 %13 = load i8 (%"class.std::ctype"*, i8)*, i8 (%"class.std::ctype"*, i8)**
... %vfn.i.i.i, align 8
 %call.i.i.i = call signext i8 %13(%"class.std::ctype"* nonnull align 8
... dereferenceable(570) %9, i8 signext 10)
 br label %_ZSt4endlIcSt11char_traitsIcEERSt13basic_ostreamIT_T0_ES6_.exit
```

```
if.then.i4.i.i:
 %arrayidx.i.i.i = getelementptr inbounds %"class.std::ctype",
... %"class.std::ctype"* %9, i64 0, i32 9, i64 10
 %11 = load i8, i8* %arrayidx.i.i.i, align 1, !tbaa !13
 br label %_ZSt4endlIcSt11char_traitsIcEERSt13basic_ostreamIT_T0_ES6_.exit
```

```
_ZSt4endlIcSt11char_traitsIcEERSt13basic_ostreamIT_T0_ES6_.exit:
 %retval.0.i.i.i = phi i8 [ %11, %if.then.i4.i.i ], [ %call.i.i.i,
... %if.end.i.i.i ]
 %call1.i = call nonnull align 8 dereferenceable(8)
... %"class.std::basic_ostream"* @_ZNSo3putEc(%"class.std::basic_ostream"*
... nonnull align 8 dereferenceable(8) %call3, i8 signext %retval.0.i.i.i)
 %call.i.i = call nonnull align 8 dereferenceable(8)
... %"class.std::basic_ostream"* @_ZNSo5flushEv(%"class.std::basic_ostream"*
... nonnull align 8 dereferenceable(8) %call1.i)
 ret i32 0
```

CFG for 'main' function