You are working on problem set: Project 5 (Pause)

polymorphismMystery10

Language/Type: C++ inheritance polymorphism

Consider the following classes; assume that each is defined in its own file.

```
class Jesse : public Tulip {
public:
    virtual void m1() {
        cout << "Js1  ";
        Cassidy::m1();
    }

    virtual void m4() {
        cout << "Js4  ";
        m2();
    }
};

class Cassidy {
public:
    virtual void m1() {
        cout << "Ca1  ";
        m2();
    }

    virtual void m2() {
        cout << "Ca2  ";
    }
};

class Tulip : public Cassidy {
public:
    virtual void m2() {
        cout << "Tu2  ";
```

```
        Cassidy::m2();
    }

    virtual void m3() {
        cout << "Tu3  ";
        m1();
    }
};
```

Now assume that the following variables are defined:

```
Cassidy*  var1 = new Tulip();
Tulip*    var2 = new Jesse();
```

In the table below, indicate in the right-hand column the output produced by the statement in the left-hand column. If the statement produces more than one line of output, indicate the line breaks with slashes as in "x / y / z" to indicate three lines of output with "x" followed by "y" followed by "z". If the statement does not compile, write "COMPILER ERROR". If a statement would crash at runtime or cause unpredictable behavior, write "CRASH".

.
.
.

`var1->m1();`	`Ca1  Tu2  Ca2`
`var1->m3();`	`COMPILER ERROR`
`var2->m2();`	`Tu2  Ca2`
`var2->m3();`	`Tu3  Js1  Ca1  Tu2  Ca2`
`var2->m4();`	`COMPILER ERROR`
`((Tulip*) var1)->m3();`	`Tu3  Ca1  Tu2  Ca2`
`((Tulip*) var1)->m4();`	`COMPILER ERROR`
`((Jesse*) var1)->m4();`	`CRASH`
`((Cassidy*) var2)->m3();`	`COMPILER ERROR`
`((Jesse*) var2)->m4();`	`Js4  Tu2  Ca2`

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#	question	your answer	result
1	`var1->m1();`	`Ca1 Tu2 Ca2`	pass
2	`var1->m3();`	`COMPILER ERROR`	pass
3	`var2->m2();`	`Tu2 Ca2`	pass
4	`var2->m3();`	`Tu3 Js1 Ca1 Tu2 Ca2`	pass
5	`var2->m4();`	`COMPILER ERROR`	pass
6	`((Tulip*) var1)->m3();`	`Tu3 Ca1 Tu2 Ca2`	pass
7	`((Tulip*) var1)->m4();`	`COMPILER ERROR`	pass
8	`((Jesse*) var1)->m4();`	`CRASH`	pass
9	`((Cassidy*) var2)->m3();`	`COMPILER ERROR`	pass
10	`((Jesse*) var2)->m4();`	`Js4 Tu2 Ca2`	pass

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