



```

ostream& operator << (ostream& os, const Person& p) {
    os << p.getName() << endl;
    return os;
}
  
```

```

ostream& operator << (ostream& os, const Student& s) {
    const Person* p = &s;
    os << (*p);
    os << s.getSchool();
    return os;
}
  
```

dereference  
take p's value as  
address and read  
from that address

address

pointer, address

```

int a = 6;
int *b = &a;
int c = *b;
// c = 6
  
```

```

class Point3D; //forward declaration
class Point2D {
private:
    int x;
    int y;
public:
    point2D(int a, int b) {
        x = a;
        y = b;
    }
    operator Point3D();
};
  
```

```

class Point3D {
private:
    int x;
    int y;
    int z;
public:
    Point3D(int a, int b, int c) {
        x = a;
        y = b;
        z = c;
    }
    operator int() const {
        return (x+y+z);
    }
}
  
```

no type

```

Point2D::operator Point3D() {
    return {x, y, 0};
}
  
```

//convert point2D -> point3D

return type

Point3D

```

friend operator <<
ostream& operator << (ostream& os,
    const Point3D& p) {
    os << p.x << " " << p.y << " " << p.z << endl;
    return os;
}
  
```