

Polymorphism: Concept Challenge



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Concept Challenge

- **Pause** Try to solve the problem yourself
- **Discuss** with other learners (if you can)
- **Watch** the UCSD learners video
- **Confirm** your understanding with our explanation



```
public class Person
```

```
{
```

```
    private String name;
```

```
    public Person(String name) { this.name = name; }
```

```
    public boolean isAsleep(int hr) { return 22 < hr || 7 > hr; }
```

```
    public String toString() { return name; }
```

```
    public void status( int hr )
```

```
    {
```

```
        if ( this.isAsleep( hr ) )
```

```
            System.out.println( "Now offline: " + this );
```

```
        else
```

```
            System.out.println( "Now online: " + this );
```

```
    }
```

```
}
```

```
public class Student extends Person
```

```
{
```

```
    public Student(String name) {
```

```
        super(name);
```

```
    }
```

```
    public boolean isAsleep( int hr ) // override
```

```
    { return 2 < hr && 8 > hr; }
```

```
}
```

```
Person p;
```

```
p = new Student("Sally");
```

```
p.status(1);
```



Start IVQ

```
public class Person
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        if ( this.isAsleep( hr ) )
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            System.out.println( "Now offline: " + this );
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```
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    { return 2 < hr && 8 > hr; }
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```
Person p;
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p = new Student("Sally");
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p.status(1);
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What will this code print?

- A. "Now online: Sally"
- B. "Now offline: Sally"
- C. Runtime error
- D. Compile time error



End IVQ / Start Discussion

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