

Tinker Academy

Programming Using Java
(Java If Statement)

Java if Statement

If Statements

```
int i = Math.random() *100;  
  
if (i < 10) {  
    System.out.println("printed with P = 0.1);  
}
```

If Then Statement

Conditionally executes 1 statement

```
int i = Math.random() *100;  
  
if (i < 10) {  
    System.out.println("printed with P = 0.1);  
} else {  
    System.out.println("printed with P = 0.9);  
}
```

If Then Else Statement

Conditionally executes 2 statements

Java If Statement

If Then Statement

```
if (Expression) {  
    Statements  
}
```

If Statement

If **Expression** is true, **Statements** exec

If **Expression** is false, **Statements** will not exec

Java If Statement

If Then Else Statement

```
if (Expression) {  
    Statements1  
} else {  
    Statements2  
}
```

If Statement

If **Expression** is true, only **Statements1** will exec

If **Expression** is false, only **Statements2** will exec

Java If Statement

If Then Statement

```
if (Expression) {  
    Statements1  
}  
Statements2
```

If Statement

If **Expression** is true, **Statements1** will exec, **Statements2** will exec

If **Expression** is false, **Statements1** will not exec, **Statements2** will exec

Java If Statement

If Then Statement

```
if (Expression) {  
    return Expression1;  
}  
return Expression2;
```

If Statement

If **Expression** is true, **Expression1** will exec, **Expression2** will not exec

If **Expression** is false, **Expression1** will not exec, **Expression2** will exec

Java If Statement

If Then Statement

```
if (Expression) {  
    throw new Exception();  
}  
Statements1
```

If Statement

If **Expression** is true, **throw** will exec, **Statements1** will not exec

If **Expression** is false, **throw** will not exec, **Statements1** will exec

Java If Statement

If Then Statement

```
if (Expression) {  
    Statements1  
}  
throw new Exception();
```

If Statement

If Expression is true, Statements1 will exec, throw will exec

If Expression is false, Statements1 will not exec, throw will exec

Java If Statement

If Then Else Statement

```
if (Expression) {  
    return Expression1;  
} else {  
    return Expression2;  
}
```

If Statement

If Expression is true, only Expression1 will exec

If Expression is false, only Expression2 will exec

Java If Statement

If Then Else Statement

```
if (Expression) {  
    return Expression1;  
} else {  
    Statements1  
}  
Statements2
```

If Statement

If **Expression** is true, **Expression1** will exec, **Statements1** & **Statements2** will not exec

If **Expression** is false, **Expression1** will not exec, **Statements1** & **Statements2** will exec

Java If Statement

If Then Else Statement

```
if (Expression) {  
    return Expression1;  
} else {  
    return Expression2;  
}  
Statements1
```

If Statement

If **Expression** is true, only **Expression1** will exec, **Statements1** will not exec

If **Expression** is false, only **Expression2** will exec, **Statements1** will not exec

Java If Statement

If Then Statement

```
for (int i = 0; i < 10; i++) {  
    if (Expression) {  
        return Expression1;  
    }  
    Statements1;  
}
```

If Statement

Within loop, If Expression is true for i, Expression1 will exec for i, loop will exit

Within loop, If Expression is false for i, Statements1 will exec for i

Java If Statement

If Then Statement

```
for (int i = 0; i < 10; i++) {  
    if (Expression) {  
        continue;  
    }  
    Statements1;  
}
```

If Statement

Within loop, If **Expression** is true for i, **Statements1** will not exec for i, loop will continue

Within loop, If **Expression** is false for i, **Statements1** will exec for i

Java If Statement

If Then Statement

```
for (int i = 0; i < 10; i++) {  
    if (Expression) {  
        break;  
    }  
    Statements1;  
}
```

If Statement

Within loop, If **Expression** is true for i, **Statements1** will not exec for i, loop exits

Within loop, If **Expression** is false for i, **Statements1** will exec for i