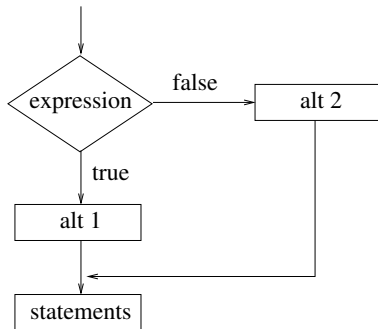


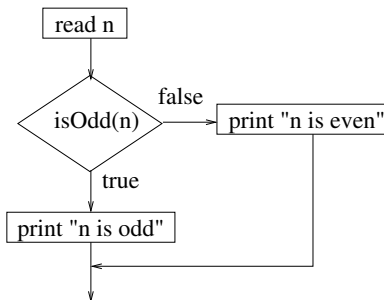
If Statement

- **if (expression)**
 statement;
- **if (expression) {statements}**
- **if (expression)**
 statement;
 else
 statement;



Examples Using if

Example 17



Examples Using if

Example 17 (contd)

```
#include <stdio.h>
int main() {
    // Determines if input number is odd or even
    int n;

    printf(" Enter number : ");
    scanf("%d", &n);

    if (n%2 == 0)
        printf("%d is even\n", n);
    else
        printf("%d is odd\n", n);
}
```

Examples Using if

Example 18

```
#include <stdio.h>
int main() {
    int n, m, ndigit = 0;

    printf("Enter a number (<=999): ");

    scanf("%d", &n);

    if (n < 10) ndigit = 1;
    else if (n < 100) ndigit = 2;
        else if (n < 1000) ndigit = 3;

    // Rest of the program.
}
```

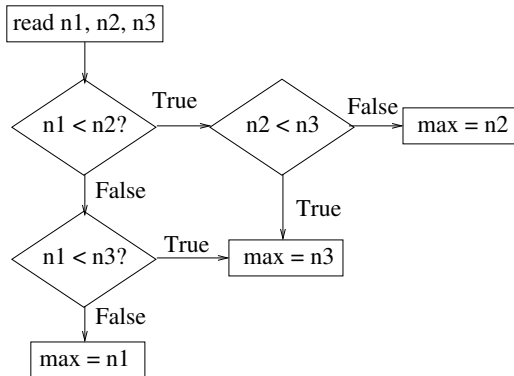
Examples Using if

Example 18

```
if (ndigit == 1)
    printf("Input: %d output: %d\n", n, n);
else if (ndigit == 2) {
    m = n % 10 * 10 + n/10;
    printf("Input: %d output: %d\n", n, m);
} else {
    m = (n % 10 * 10 + n/10 % 10) * 10 + n / 100;
    printf("Input: %d output: %d\n", n, m);
}
```

Examples Using if

Example 19



Examples Using if

Example 19 (contd)

```
#include <stdio.h>
int main() {
    // Finds maximum and minimum of three numbers
    int a, b, c;
    int m; // will hold minimum value

    // Input three numbers
    printf("Enter three numbers : ");
    scanf("%d %d %d", &a, &b, &c);

    m = a;
    if (m > b) m = b;
    if (m > c) m = c;

    printf("Minimum of { %d, %d, %d } is: %d\n", a, b, c, m);
}
```

Examples Using if

Example 20

```
#include <stdio.h>
int main() {
    int a, b, c, m;

    printf(" Enter three numbers : ");
    scanf("%d %d %d", &a, &b, &c);

    if (a < b)
        if (a < c) m = a;    // a < b < c
        else m = c;        // a < b and a > c => c < b
    else if (b < c) m = b;  // a > b and b < c => b < c
        else m = c        // a > b and b > c => a > c

    printf(" Minimum of { %d, %d, %d } is: %d\n", a, b, c, m);
}
```


Examples Using if

Example 21

