

Writing C Programs (cont)

Another problem to solve in C:

- sum of squares
 - print a message asking for the first number
 - read the first number x
 - print a message asking for the second number
 - read the second number y
 - print the value of $x^2 + y^2$ on a line by itself

Writing C Programs (cont)

Another problem to solve in C:

- divide two numbers
 - print a message asking for the first number
 - read the first number
 - print a message asking for the second number
 - read the second number
 - divide the numbers and print the result

Writing C Programs (cont)

Another problem to solve in C:

- convert temperature in fahrenheit to celsius
 - print a message asking for the temperature in F
 - read in the temperature
 - convert to $C = \frac{5}{9} \times (F - 32)$
 - print value of C

Making Choices

Programs need to make choices

```
if ( some condition holds ) {  
    do something  
}  
else {  
    do something else  
}
```

Making Choices (cont)

Choices can be multiway ...

```
if ( Condition1 ) {  
    Statements1 ...  
} else if ( Condition2 ) {  
    Statements2 ...  
} else {  
    StatementsN+1 ...  
}
```

Writing C Programs (cont)

Another problem to solve in C:

- comparing numbers
 - prompt for and read in two numbers
 - if first > second, print appropriate message
 - if first < second, print appropriate message
 - if first = second, print appropriate message