


Lecture 3.3: Overview

- Review
 - Lecture 1.1: Course administration, setup
 - Lecture 1.2: Unix system environment
 - Lecture 1.3: Introduction to C programming
 - Lecture 2.1: Input, computation, output
 - Lecture 2.2: Basic types, operators
 - Lecture 2.3: Arithmetic expressions
 - Lecture 3.1: Conditional operators, statements
 - Lecture 3.2: Counters, repetition statements
- Review Quiz

Quiz: Question 16

- Today's computers run at which clock speed?
 - a) 85 MPH
 - b) 1 kHz
 - c) 1 ms
 - d) 1 GHz
 - e) 1 MHz

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 - e) 1 MHz

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Quiz: Question 17

- Which of the following constructs are valid type names in C? (Check all that apply!)
 - a) `long char`
 - b) `long double`
 - c) `signed long long`
 - d) `unsigned float`
 - e) `signed integer`

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- e) `signed integer`

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Quiz: Question 18

- Assume `i` is a variable of type `int` and `d` is a variable of type `double`. Which statement is true for the following assignment? (Check all that apply!)

```
i = (int)d;
```

- a) The comparison checks whether `d` is an integer.
- b) The precision of `i` is doubled.
- c) The parentheses should go around `d`.
- d) The value in `d` is converted to an integer value and then assigned to `i`.
- e) Any fractional part in `d` is truncated off.

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Quiz: Question 18

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- e) Any fractional part in `d` is truncated off.

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Quiz: Question 19

- Which of the following statements correctly computes the polynomial $p = 2x^2 - 3x + 4$? (Check all that apply!)

- a) `p = 2x^2 - 3x + 4;`
- b) `p = 2xx - 3x + 4;`
- c) `p = x*x*2 - 3*x + 4.0;`
- d) `p = 2*(x*x + 3)*x + 4;`
- e) `p = (2*x - 3)*x + 4;`

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e) `p = (2*x - 3)*x + 4;`

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Quiz: Question 20

- Which of the following names are valid keywords in C? (Check all that apply!)

a) `if`

b) `when`

c) `void`

d) `main`

e) `Int`

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Quiz: Question 20

- Which of the following names are valid keywords in C? (Check all that apply!)

- a) `if`
- b) `when`
- c) `void`
- d) `main`
- e) `Int`

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Quiz: Question 21

- Which of the following names are valid identifiers in C? (Check all that apply!)

- a) `xyz`
- b) `IBM`
- c) `dollar amount`
- d) `My_Very_Long_Variable_Name`
- e) `2fast4you`

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Quiz: Question 21

- Which of the following names are valid identifiers in C? (Check all that apply!)

- a) `xyz`
- b) `IBM`
- c) `dollar amount`
- d) `My_Very_Long_Variable_Name`
- e) `2fast4you`

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Quiz: Question 22

- What is the result of the evaluation of the following expression?

```
1 == 2 || 3 < 4 && 5 > 6
```

- a) `123456`
- b) `true`
- c) `false`
- d) `1`
- e) `0`

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Quiz: Question 22

- What is the result of the evaluation of the following expression?

```
1 == 2 || 3 < 4 && 5 > 6
```

- a) 123456
- b) true
- c) false
- d) 1
-  e) 0

Quiz: Question 23

- What is the result of the evaluation of the following expression?


```
17 < 42 ? 17 : 42
```

- a) 1742
- b) 17
- c) 42
- d) true
- e) false

Quiz: Question 23

- What is the result of the evaluation of the following expression?

```
17 < 42 ? 17 : 42
```

- a) 1742
-  b) 17
- c) 42
- d) true
- e) false

Quiz: Question 24

- For integer $x = 1$ at the beginning, what is the value of x after the following statement?


```
x += x + 1;
```

- a) 0
- b) 1
- c) 2
- d) 3
- e) 4

Quiz: Question 24

- For integer $x = 1$ at the beginning, what is the value of x after the following statement?

```
x += x + 1;
```

- a) 0
- b) 1
- c) 2
-  d) 3
- e) 4

Quiz: Question 25

- Assuming that x is a variable of type `int`, which values of x satisfy the following condition?


```
x % 2 == 1
```

- a) no value
- b) any value
- c) any value less than 2
- d) any odd value
- e) any even value

Quiz: Question 25

- Assuming that x is a variable of type `int`, which values of x satisfy the following condition?

```
x % 2 == 1
```

- a) no value
- b) any value
- c) any value less than 2
-  d) any odd value
- e) any even value

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Quiz: Question 26

- Assume that x is an integer in the range of 1 through 10 inclusively. Which of the following expressions can be used as a test for x being an even number?

(Check all that apply!)

- a) `x % 2 == 0`
- b) `x / 2 > 1`
- c) `x % 2 == 1`
- d) `x / 2 * 2 == x`
- e) `x==2 || x==4 || x==6 || x==8 || x==10`

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Quiz: Question 26

- Assume that x is an integer in the range of 1 through 10 inclusively. Which of the following expressions can be used as a test for x being an even number?

(Check all that apply!)

- a) $x \% 2 == 0$
- b) $x / 2 > 1$
- c) $x \% 2 == 1$
- d) $x / 2 * 2 == x$
- e) $x==2 \ || \ x==4 \ || \ x==6 \ || \ x==8 \ || \ x==10$

Quiz: Question 27


- Given the following program fragment, what is printed when it gets executed?

- a) nothing
- b) 0
- c) 10
- d) 20
- e) 30

```
int i = 1;
int s = 0;
while (1)
{
    i++;
    if (i >= 10)
        { break; }
    if (i % 2 == 1)
        { continue; }
    s += i;
}
printf("%d", s);
```

Quiz: Question 27

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- a) nothing
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        { continue; }
    s += i;
}
printf("%d", s);
```

Quiz: Question 28

- Which of the following variable declarations is valid in ANSI-C?
(Check all that apply!)

- a) `double xyz;`
- b) `double x, y, z;`
- c) `double x = 1.0;`
- d) `double x = 1.1, y = 2.2, z = 3.3;`
- e) `double x,y,z = 1.0,2.0,3.0;`

Quiz: Question 28

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- b) `double x, y, z;`
- c) `double x = 1.0;`
- d) `double x = 1.1, y = 2.2, z = 3.3;`
- e) `double x,y,z = 1.0,2.0,3.0;`

Quiz: Question 29

- Which of the following data types has the largest range of representable numbers?

- a) `char`
- b) `short int`
- c) `long long int`
- d) `unsigned int`
- e) `signed long int`

Quiz: Question 29

- Which of the following data types has the largest range of representable numbers?
 - a) `char`
 - b) `short int`
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 - d) `unsigned int`
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Quiz: Question 30


- Which of the following data types can store the greatest value?
 - a) `long int`
 - b) `long long int`
 - c) `unsigned long long int`
 - d) `float`
 - e) `double`

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 - a) `long int`
 - b) `long long int`
 - c) `unsigned long long int`
 - d) `float`
 -  e) **`double`**