### EECS 10: Computational Methods in Electrical and Computer Engineering Quiz on Lectures 1-8

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### Quiz: Question 1

- Which Unix command shows you the path to the current directory?
  - a) cd
  - b) pwd
  - c) dir
  - d) ls
  - e) list

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2

- Which Unix command shows you the path to the current directory?
  - a) cd



- b) pwd
- c) dir
- d) ls
- e) list

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### Quiz: Question 2

- Which of the following Unix commands renames file "text1" into "homework1"?
  - a) ren text1 homework1
  - b) ren homework1 text1
  - c) rm text1 homework1
  - d) mv homework1 text1
  - e) mv text1 homework1

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4

- Which of the following Unix commands renames file "text1" into "homework1"?
  - a) ren text1 homework1
  - b) ren homework1 text1
  - c) rm text1 homework1
  - d) mv homework1 text1
- e) mv text1 homework1

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### Quiz: Question 3

- What is C not?
  - a) a structured programming language
  - b) a object-oriented programming language
  - c) a compiled programming language
  - d) a high-level programming language
  - e) a portable programming language

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6

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  - d) a high-level programming language
  - e) a portable programming language

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7

### Quiz: Question 4

What is the meaning of the following code fragment?

/\* printf("C programming is great!\n") \*/

- a) it prints "C programming is boring!"
- b) it prints "C programming is great!"
- c) it is a syntax error because a semicolon is missing after the printf() statement
- d) it is the main function of the C program
- e) it is a comment ignored by the compiler

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8

What is the meaning of the following code fragment?

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- d) it is the main function of the C program
- e) it is a comment ignored by the compiler

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9

### Quiz: Question 5

 What is true about of the following compiler call? (Check all that apply!)

% gcc HelloWorld.c -Wall -ansi -o HelloWorld

- a) the GNU C Compiler is called to generate an executable program called Helloworld
- the compiler will print warning and/or error messages about any non-ANSI compliance in the code
- c) the compiler will ignore all warnings
- d) the compiler will read the file Helloworld.c
- e) the compiler will overwrite the Helloworld file if it already exists

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10

### Quiz: Question 5 • What is true about of the following compiler call? (Check all that apply!) \* gcc Helloworld.c -Wall -ansi -o Helloworld a) the GNU C Compiler is called to generate an executable program called Helloworld b) the compiler will print warning and/or error messages about any non-ANSI compliance in the code c) the compiler will ignore all warnings d) the compiler will read the file Helloworld.c e) the compiler will overwrite the Helloworld file if it already exists

### Quiz: Question 6

- Which of the following constructs is a valid arithmetic operator in C? (Check all that apply!)
  - a) /
  - b) %
  - c) !
  - d) @
  - e) >>

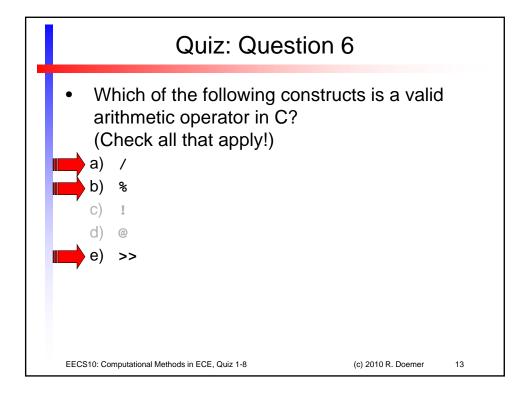
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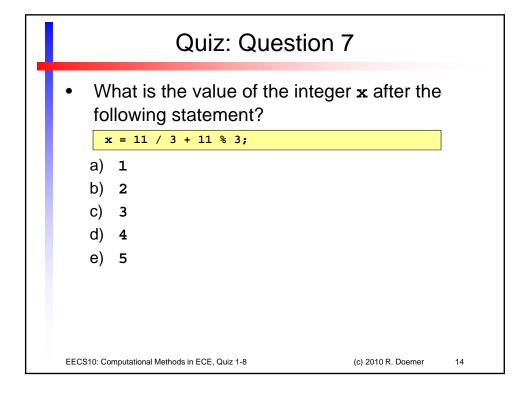
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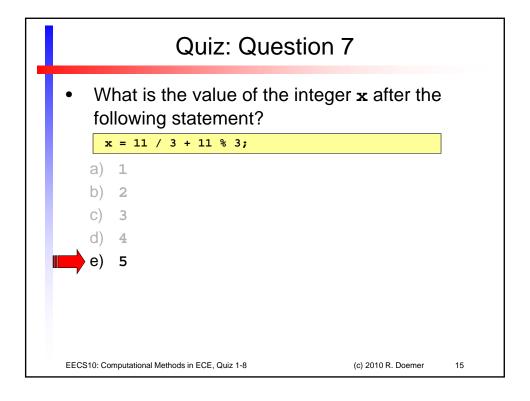
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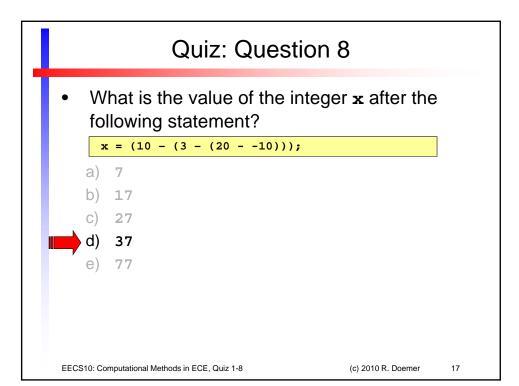
12







# Quiz: Question 8 What is the value of the integer x after the following statement? x = (10 - (3 - (20 - -10))); a) 7 b) 17 c) 27 d) 37 e) 77 EECS10: Computational Methods in ECE, Quiz 1-8 (c) 2010 R. Doemer 16



# • Which of the following format strings will print an unsigned int value in decimal format when used with printf()? a) "%u" b) "%ud" c) "%d" d) "%lu" e) "%ui"

 Which of the following format strings will print an unsigned int value in decimal format when used with printf()?

- 🛑 a) 🛚 "%u"
  - b) "%ud"
  - c) "%d"
  - d) "%lu"
  - e) "%ui"

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19

### Quiz: Question 10

- Which of the following statements will correctly read a decimal value from stdin into a variable x of type signed int?
  - a) stdin("%x", &u);
  - b) stdin("%u", x);
  - C) scanf("%d", &x);
  - d) scanf("&x", %u);
  - e) scanf("&x", %d);

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20

- Which of the following statements will correctly read a decimal value from stdin into a variable x of type signed int?
  - a) stdin("%x", &u);
  - b) stdin("%u", x);
  - C) scanf("%d", &x);
  - d) scanf("&x", %u);
  - e) scanf("&x", %d);

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21

### Quiz: Question 11

 What is the value of the integer x after the following statement?

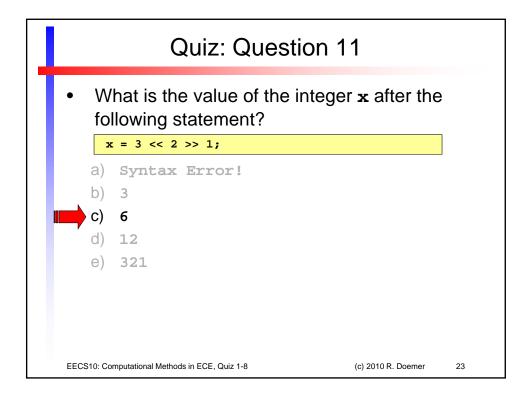
x = 3 << 2 >> 1;

- a) Syntax Error!
- b) 3
- c) 6
- d) 12
- e) 321

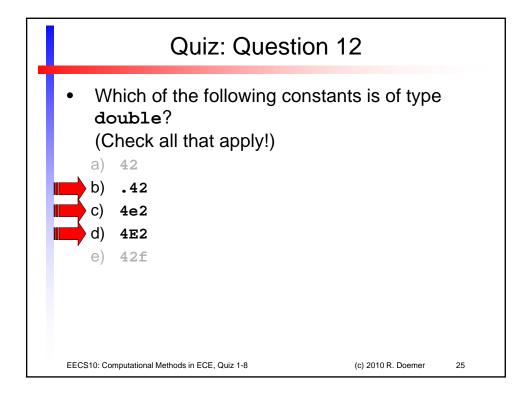
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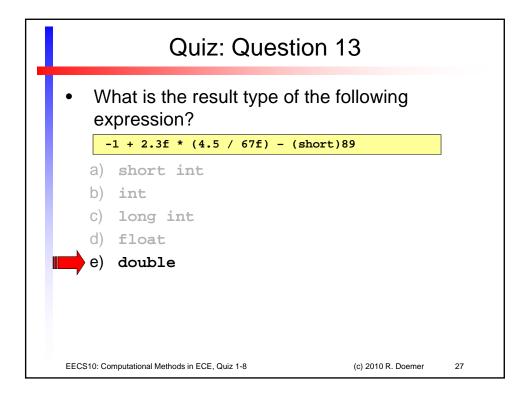
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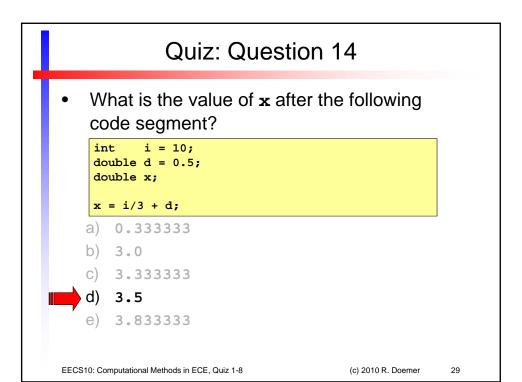
### • Which of the following constants is of type double? (Check all that apply!) a) 42 b) .42 c) 4e2 d) 4E2 e) 42f



# Quiz: Question 13 What is the result type of the following expression? -1 + 2.3f \* (4.5 / 67f) - (short)89 a) short int b) int c) long int d) float e) double EECS10: Computational Methods in ECE, Quiz 1-8 (c) 2010 R. Doemer 26



```
    Quiz: Question 14
    What is the value of x after the following code segment?
    int i = 10;
        double d = 0.5;
        double x;
        x = i/3 + d;
        a) 0.333333
        b) 3.0
        c) 3.333333
        d) 3.5
        e) 3.833333
```



```
Quiz: Question 15
Given the following code fragment,

double x;
double x;
double y;

x = (int)(y + 0.5);

which of the following statements is true?

(Check all that apply!)

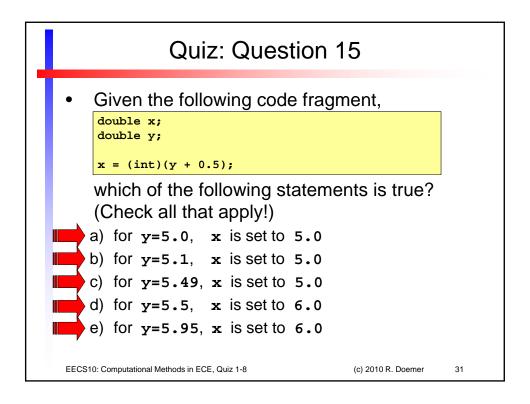
a) for y=5.0, x is set to 5.0

b) for y=5.1, x is set to 5.0

c) for y=5.49, x is set to 5.0

d) for y=5.5, x is set to 6.0

e) for y=5.95, x is set to 6.0
```



- 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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32

# 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 EECS10: Computational Methods in ECE, Quiz 1-8 (c) 2010 R. Doemer 33

### 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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34

- Which of the following constructs are valid type names in C? (Check all that apply!)
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- e) signed integer

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35

### 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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36

 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!)

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37

### Quiz: Question 19

- Which of the following expressions 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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38

- Which of the following expressions 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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39

### 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

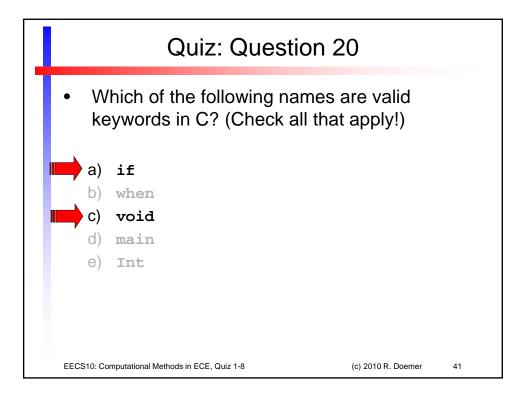
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40

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20

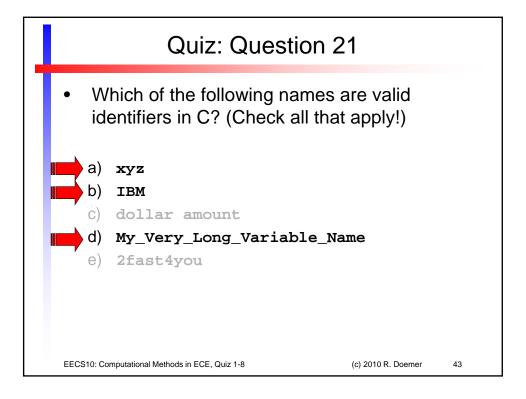


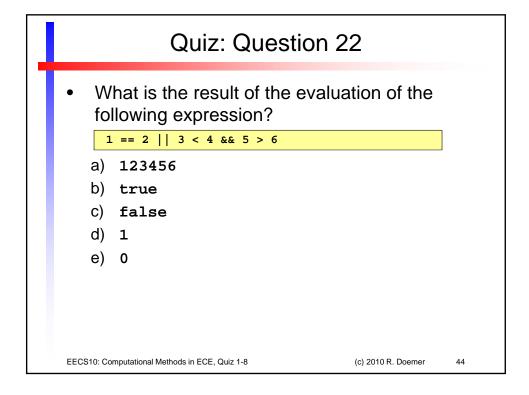
- Which of the following names are valid identifiers in C? (Check all that apply!)
  - a) xyz
  - b) IBM
  - c) dollar amount
  - d) My\_Very\_Long\_Variable\_Name
  - e) 2fast4you

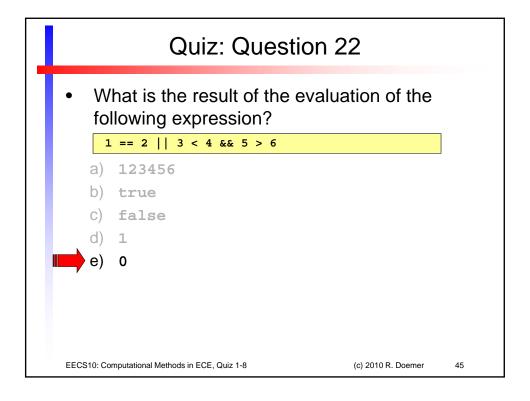
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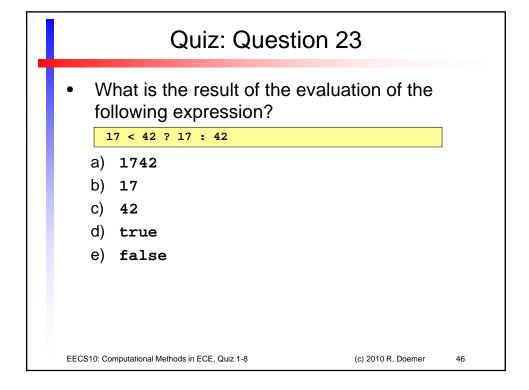
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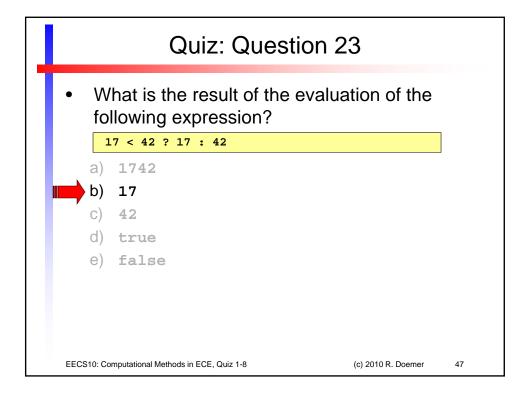
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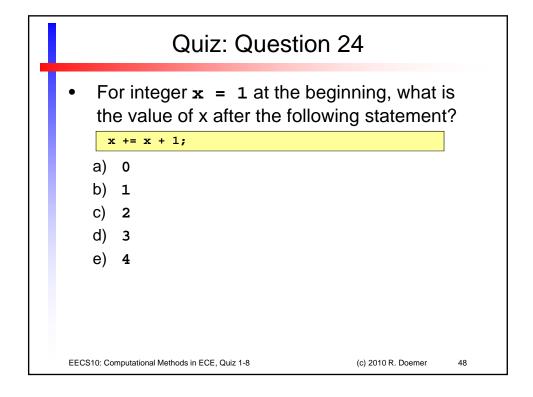


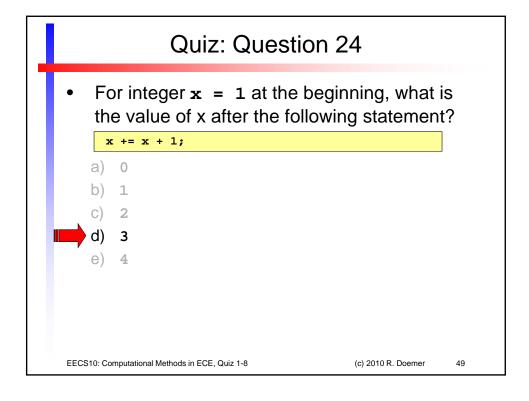












# Quiz: Question 25 Assuming that x is a variable of type int, which values of x satisfy the following condition? x % 2 == 1 a) no value b) any value c) any value less than 2 d) any odd value e) any even value

 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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51

### 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! 2 pts.)

- 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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52

 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?

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- 📥 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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53

### 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);
```

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54

 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);
```

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55

### Quiz: Question 28

 Which of the following variable declarations is valid in ANSI-C?

(Check all that apply! 2 pts.)

- 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;

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56

- Which of the following variable declarations is valid in ANSI-C? (Check all that apply! 2 pts.)
  - 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;

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57

### 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

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58

- Which of the following data types has the largest range of representable numbers?
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  - e) signed long int

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59

### 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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60

