

### 3.2 Self-Review Questions

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1. Indicate whether the following identifiers **VALID** or **INVALID**. Explain if invalid.

Identifier	Valid / Invalid ?	Why Invalid ?
employee name	Invalid	Space
_int_	Valid	
tot&Salary	Invalid	Special character &
\$RM	Invalid	Special character \$
number1	Valid	
3rdnumber	Invalid	Start with number
else	Invalid	Reserved word
EmpPosition	Valid	
number_2	Valid	
double	Invalid	Reserved word

2. The disjunction \_\_\_\_\_ logical operator is true only when at least one of the operands is **TRUE**.
3. If  $x = \text{false}$ ,  $y = \text{true}$ , and  $z = \text{true}$ , what is the value of each of the following expressions?
- $x \ \&\& \ y \ || \ z = \underline{\text{true}}$
  - $x \ || \ y \ \&\& \ z = \underline{\text{true}}$
  - $(x \ \&\& \ y) \ || \ z = \underline{\text{true}}$
  - $(x \ || \ y) \ \&\& \ z = \underline{\text{true}}$
  - $(x \ \&\& \ z) \ || \ y = \underline{\text{true}}$
4. Show the value of  $x$  after each statement is performed:
- $x = 6 + 4 * 8 / (2 - 1); \underline{x=38}$
  - $x = 6 \% (4 + 2) * 4 - 2 / 2; \underline{x=-1}$

- c)  $x = ( 3 * 7 * ( 3 + ( 2 * 12 / (4) ) ) )$ ; **x=189**
- d)  $x = 6 * (3 + 18) / 2 - 5 * 4$ ; **x=43**

5. Find any errors in the following program:

```
integer main()
{
    int lnum, num 2, num3;
    character id;
    lnum + num 2 = num3;
    cout << id << num3 << \n;
    return;
}
```

1. **Integer - int**
2. **Num 2 - num2**
3. **Character - char**
4. **<< - >>**
5. **\n-'\n'**
6. **Return-return 0**

6. If originally x=6, y=3, and z=2, what is the value of each of the following expression?

- a)  $x - z * 6 / y$  **= 2**
- b)  $y++ * (x + y) \% z + y$  **= 5 // y=4**
- c)  $++y + z-- + x++$  **= 12 // y=4 z=1 x=7**
- d)  $x++ - 3 * ++z + 2$  **= 1 // x=7 z=3**
- e)  $++x - 2 * (5 - ++z) + y$  **= 6 // x=7 y=3 z=3**

