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Syntax Errors:

- a. What will be the output of the following function? If there is a problem in it, explain the solution.

```
function add() public pure returns (uint){
    uint a=7;
    uint b=9;
    return a-b;
}
```

Answer: output of the following function is

```
call to Advh.add errored: VM error: revert.

revert
    The transaction has been reverted to the initial state.
Note: The called function should be payable if you send value and the value you send should be less than your current balance.
Debug the transaction to get more information.

CALL [call] from: 0x5838Da6a701c568545dCfcB03FcB875f56beddC4 to: Advh.add() data: 0x4f2...be91f
```

Solidity supports INT types, which are treated arithmetically as signed values (i.e., can be positive, negative and zero).

Since the return type of the function is Uint, it is treated arithmetically as an unsigned value, which can never be negative.

Correct way to write function is

```
function result() public pure returns(int) {
    int _a=7;
    int _b=9;
    return _a - _b;
}
```

- b. What will be the output of the following function? If there is a problem in it, explain the solution.

```
function divide() public pure returns (uint) {  
    uint a = 19;  
    uint b = 9;  
    return a / b;  
}
```

ANSWER B) output of this function is 2.

C:

- c. Debug the following function and explain how it can be fixed.

```
function transfer(address receiver, uint numberOfTokens) public returns (bool) {  
    require(numberOfTokens <= balances[receiver]);  
    balances[msg.sender] = balances[msg.sender] - numberOfTokens;  
    balances[receiver] = balances[receiver] + numberOfTokens;  
    return true;  
}
```

ANSWER) In this piece of code condition is not valid there should
balances[msg.sender] >= numberOfTokens;

D:

- d. How many times can this function be called?

```
uint private papersChecked = 1;  
function check() private {  
    require(papersChecked < 10);  
    papersChecked++;  
}
```

Answer) this function be called 9 times and at after 9 it reverts to initial state

E:

e. Explain the error in the following function. How can it be fixed?

```
string _totalSupply = 0;  
function mint(address account, uint256 amount) onlyOwner public {  
    require(account != address(0));  
    _totalSupply += amount;  
}
```

ANSWER) TypeError: Type int_const 0 is not implicitly convertible to expected type string storage ref.string _total_supply=0 it should be **Uint _totalsupply=0;**