

WEEK#5What is TRUTH?

1. TRUE or FALSE: Both of the following if statements perform the same operation.

```
if (sales > 10000)
    commissionRate = 0.15;
```

```
if (sales > 10000) commissionRate = 0.15;
```

2. TRUE or FALSE: Both of the following if statements perform the same operation.

```
if (calls == 20)
    rate *= 0.5;
```

```
if (calls = 20)
    rate *= 0.5;
```

3. Although the following code segments are syntactically correct, each contains an error. Locate the error.

- a)

```
if (hours > 40);
    cout <<hours <<" hours qualifies for overtime. \n";
```
- b)

```
balance = 1000;
if (interestRate =.07)
    cout <<"This account is earning the maximum rate. \n";
```
- c)

```
if (interestRate >.07)
    cout <<"This account earns a $10 bonus. \n";
    balance += 10.0;
```

4. Write an if statement that assigns 0 to x if y is equal to 20.

5. Write an if statement that multiplies payRate by 1.5 if hours is greater than 40.

6. Write an if statement that assigns .20 to commission if sales is greater than or equal to 10000.00

7. Write an if statement that set the variable fees to 50 if the flag variable max is set to true

8. Write nested if statements that perform the following test: If amount1 is greater than 10 and amount2 is less than 100, display the greater of the two.

9. Write an if statement that prints the message "The number is valid" if the variable speed is within the range 0 through 200.

10. Write an if statement that prints the message "The number is valid" if the variable speed is outside the range 0 through 200.