

Review for Test #2

Topics for the Test

- Expressions
- Operators
- Branching
- Methods
- PascalCase
- Binary numbers

Expressions

```
int answer = 42;   int score = 10;   int cost = 7;   string name = "Paul";
```

Expression

Type

Value

"hello " + name

score == 8

cost != 8

answer > 15

cost > 5 && cost < 10

score == 4 || cost == 7

playerName + score

Expressions

```
int answer = 42;   int score = 10;   int cost = 7;   string name = "Paul";
```

Expression

Type

Value

answer + 5

13

score – cost

answer * score

7 / 3

7 % 3

int total;

Expressions - From Test 1

```
int myScore = 25;  int rounds = 4;  int bonus = 10;  string name = "Paul";  
string mascot = "bear";
```

Expression	Type	Value
string playerName	_____	_____
if (myScore == 10)	_____	_____
myScore + rounds * bonus	_____	_____
"mascot == cougar"	_____	_____
Name == "Paul"	_____	_____

Branching

```
string s = "letters: ";  
if (x < y)  
{  
    if (x > 5)  
    {  
        s += "A";  
    }  
    else if (y > 5)  
    {  
        s += "B";  
    }  
    else  
    {  
        s += "C";  
    }  
}
```

```
else  
{  
    if (x > 5)  
    {  
        s += "D";  
    }  
    if (y > 5)  
    {  
        s += "E";  
    }  
    else  
    {  
        s += "F";  
    }  
}
```

x = 10, y = 20

x = 20, y = 10

Methods

```
private int CalculateArea(int length, int width)
{
    int area = length * width;
    return area;
}
```

```
int answer = CalculateArea(5, 7);
```

What is answer?

```
int side1 = 10;
```

```
int side2 = 20;
```

```
int ans2 = CalculateArea(side1, side2);
```

What is ans2?

Methods

```
private int ConvertToCelsius(int fahrenheit)
{
    return (fahrenheit - 32) * 5 / 9;
}
```

```
int celsius = ConvertToCelsius(32);
```

What is celsius?

Methods

```
private bool AreSame(int d1, int d2, int d3, int d4)
{
    if (d1 == d2 && d2 == d3 && d3 == d4)
    {
        return true;
    }
    return false;
}
```

```
if (AreSame(2, 3, 2, 3))
{
    AddBonus();
}
```

Methods

```
int i = 7;  
if (AreSame(i, i + 1, i + 2, i + 3))  
{  
    i = AddMore(i);  
}  
else  
{  
    i = CalculateArea(i, i * 2);  
}
```

```
int AddMore(int x)  
{  
    return CalculateArea(x * 2, x * 4);  
}
```

Binary Numbers - Convert Binary to Decimal

11011

00111

01000

10110

Binary Numbers - Convert Decimal to Binary

21

72

100

6

Helps

- Worksheets
- Assignments
- Study Guides