PASCAL - CONSTANTS

A constant is an entity that remains unchanged during program execution. Pascal allows only constants of the following types to be declared −

- Ordinal types
- Set types
- Pointer types *but the only allowed value is Nil*.
- Real types
- Char
- String

Declaring Constants

Syntax for declaring constants is as follows −

```
const
identifier = constant_value;
```

The following table provides examples of some valid constant declarations −

Constant Type	Examples
Ordinal *Integer* type constant	valid_age = 21;
Set type constant	Vowels = set of A, E, I, O, U;
Pointer type constant	P = NIL;

Real type constant	e = 2.7182818;
	
	velocity_light = 3.0E+10;

Character type constant	Operator = '+';
String type constant	president = 'Johnny Depp';

The following example illustrates the concept −

```
program const_circle (input,output);
const
PI = 3.141592654;

var
r, d, c : real;    {variable declaration: radius, dia, circumference}

begin
   writeln('Enter the radius of the circle');
   readln(r);

   d := 2 * r;
   c :=  PI * d;
   writeln('The circumference of the circle is ',c:7:2);
end.
```

When the above code is compiled and executed, it produces the following result —

```
Enter the radius of the circle
23
The circumference of the circle is 144.51
```

Observe the formatting in the output statement of the program. The variable c is to be formatted with total number of digits 7 and 2 digits after the decimal sign. Pascal allows such output formatting with the numerical variables.

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