Create a function to calculate A × B

```
CREATE FUNCTION func(@a  int,  @b  int)
RETURNS int
AS
        BEGIN
        RETURN  (@a*@b)
        END;
GO
SELECT dbo.func(5,  8)
```

→ 40

Create a function to calculate the area of a circle by diameter

$\pi \times r^2 = \pi \times (D/2)^2 = \pi \times D^2/2^2 = \pi \times D^2/4 = \pi/4 \times D^2$

```
CREATE FUNCTION dbo.CircleS (@D dec(6,3)) - - dbo.CircleS – create func like DB, @... variable introduced
RETURNS dec(6,3) - - return parameter: dec(6,3) –decimal number, 6 characters in total, 3 of 6 after «.»
        BEGIN - - function start
        RETURN (PI()/4)*POWER(@D, 2) - - the function itself
        END - - function end
GO - - start of function execution
PRINT dbo.CircleS(15) - - action - display the function-DB, where the value of the variable = 15
```

→ 176.715 - - the result is decimal number, 6 characters in total, 3 of 6 after «.»

Create a function for determine odd/even numbers

```
CREATE FUNCTION funcA(@a int)
RETURNS varchar(30)
AS
BEGIN
        DECLARE @res varchar(30)
                IF (@a=0)
                        BEGIN
                        SET @res = 'This is zero, guys!'
                        END
                ELSE IF (@a%2=0)
                        BEGIN
                        SET @res = 'Wow! Even!'
                        END
                ELSE
                        BEGIN
                        SET @res = 'Wow! Odd!'
                        END
        RETURN @res
END
GO
PRINT dbo.funcA(11)
```

→ Wow! Odd!

```
GO
PRINT dbo.funcA(12)
```

→ Wow! Even!

```
GO
PRINT dbo.funcA(0)
```

→ This is zero, guys!