

# Сатурн и его кольца на экране монитора

Моделирование на языке  
программирования QBASIC

# «Чёрная дыра»

**SCREEN 12**

**FOR i = 50 TO 1 STEP -1**

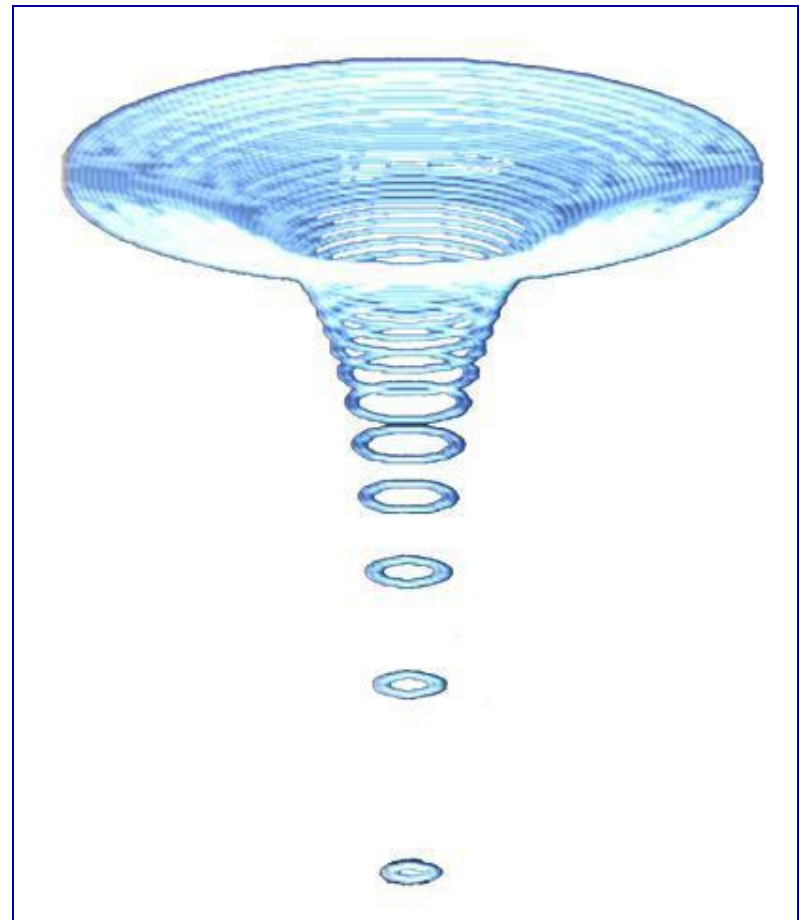
**x = INT(300 / 2)**

**y = 50 + 900 / i**

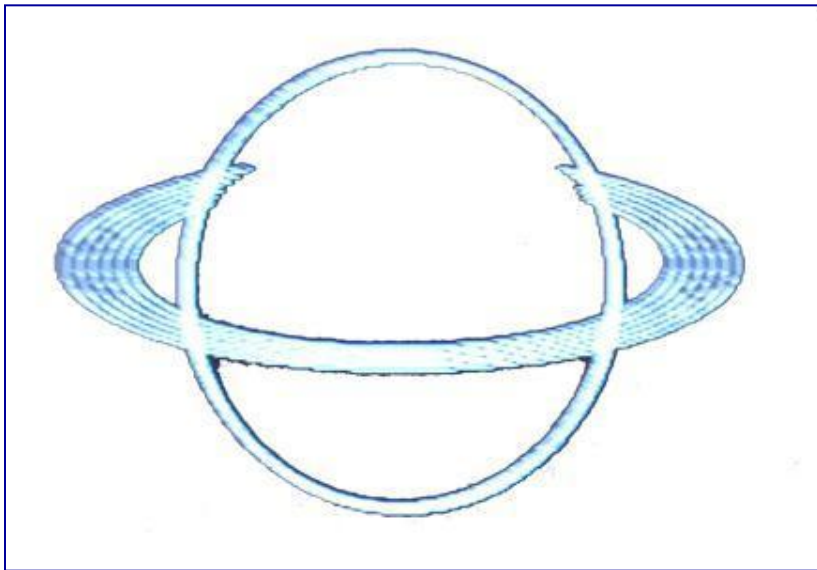
**r = 3 \* i**

**CIRCLE (x, y), r, , , , .3**

**NEXT i**



# «Сатурн и его кольца»



**SCREEN 12**

**x = INT(300 / 2)**

**y = INT(200 / 2)**

**FOR r = 79 TO 81**

**CIRCLE (x, y), r**

**NEXT r**

**k0 = .77**

**k2 = .77**

**FOR i = 1 TO 26 STEP 5**

**k0 = k0 - .02**

**k1 = k0 \* 3.1415**

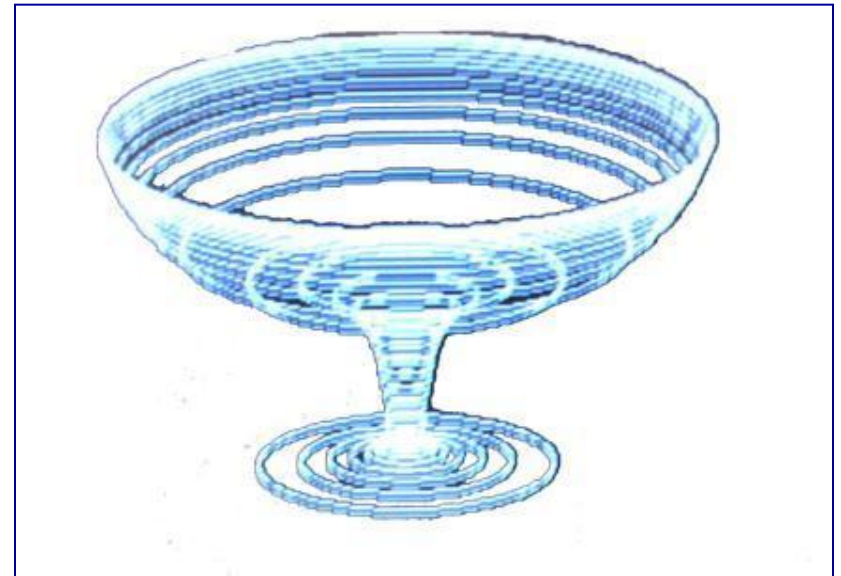
**k2 = k2 + .05**

**CIRCLE (x, y - 7), 100 + i, , k1, k2, .3**

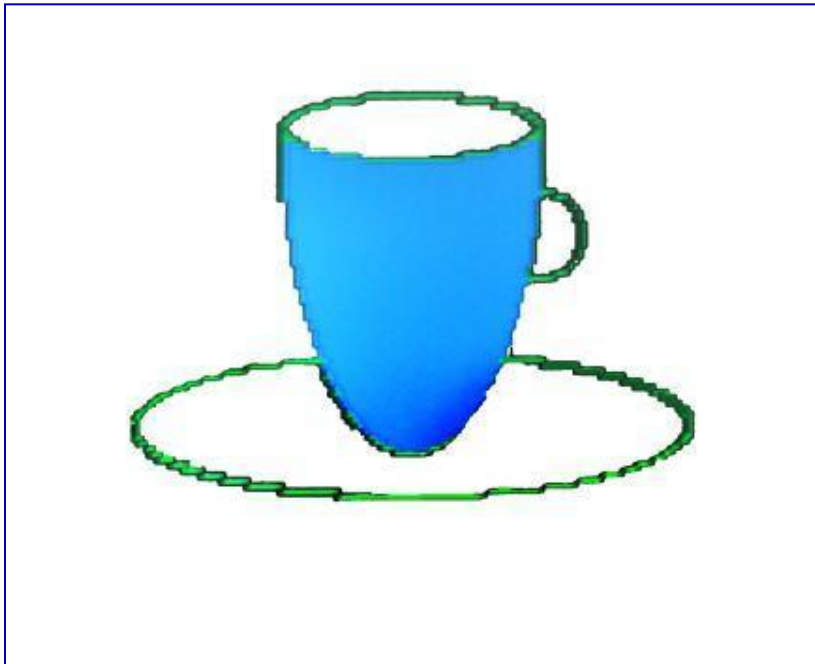
**NEXT i**

# «Ваза»

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SCREEN 12
FOR i = 15 TO 2 STEP -1
r = 120 * COS(3.1415 / i)
y = 80 * SIN(3.1415 / i)
CIRCLE (INT(300 / 2), 20 + y), r, , , , .3
NEXT i
y2 = y
FOR i = 10 TO 65 STEP 5
r = 20 / (i / 20)
CIRCLE (INT(300 / 2), y2 + i), r, , , , .3
NEXT i
y3 = y2 + 65
FOR i = 2 TO 10
r = 2 * EXP(i / 3)
CIRCLE (INT(300 / 2), y3 + i), r, , , , .3
NEXT i
```



# «Чаша»



**SCREEN 7**

**pi = 3.14**

**CIRCLE (160, 40), 30, 2, , ,  
.2**

**CIRCLE (160, 40), 60, 2,  
pi, 2 \* pi, 2**

**CIRCLE (160, 95), 65, 2, .6  
\* pi, .4 \* pi, .2**

**CIRCLE (190, 60), 10, 2,  
1.36 \* pi, .49 \* pi**

**PAINT (160, 50), 1, 2**

# «Ваза 2»

SCREEN 7

pi = 3.14

CIRCLE (160, 45), 30, 5, , , .15

CIRCLE (130, 65), 20, 5, 1.5 \*  
pi, .5 \* pi, 2

CIRCLE (190, 65), 20, 5, .5 \* pi,  
1.5 \* pi, 2

CIRCLE (130, 95), 10, 5, .5 \* pi,  
1.5 \* pi, 1.1

CIRCLE (190, 95), 10, 5, 1.5 \*  
pi, .5 \* pi, 1.1

LINE (130, 105)-(190, 105), 5

PAINT (150, 80), 5, 5

