

ΤΡΙΓΩΝΑ

1. Τυχαίο - σκαλινό

FD ____ RT ____ FD ____ HOME

2. ισόπλευρο

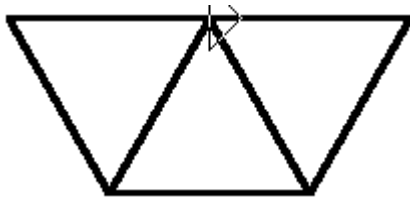
to isopleuro :x

repeat 3 [fd :x rt 120]

end

3.

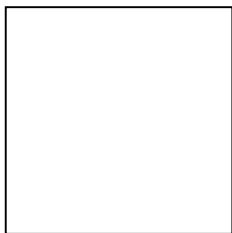
rt 90 isopleuro 100 rt 60 fd 100 rt 180 rt 60 isopleuro 100 fd 100 rt 60
isopleuro 100



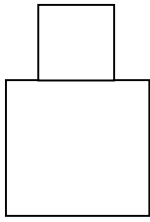
4. repeat 3|4 [isopleuro 100 rt 360/(3|4)]

ΤΕΤΡΑΓΩΝΑ

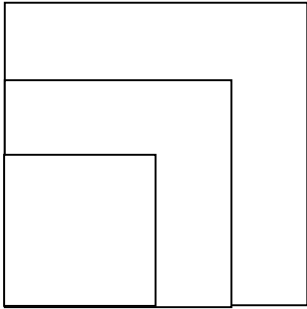
1. repeat 4 [fd 100 rt 90]



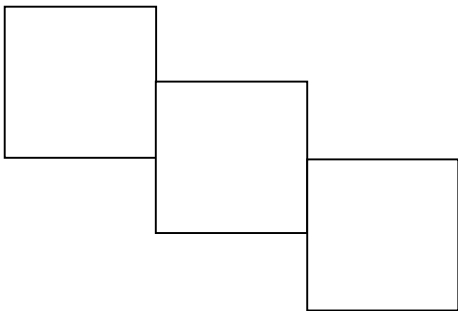
2. repeat 4 [fd 100 rt 90] fd 100 rt 90 fd 20 lt 90 repeat 4 [fd 60 rt 90]



3. make "x 50 repeat 3 [repeat 4 [fd :x rt 90] make "x :x+20]



4. repeat 3 [pd repeat 4 [fd 50 rt 90] pu rt 90 fd 50 rt 90 fd 25 rt 180]

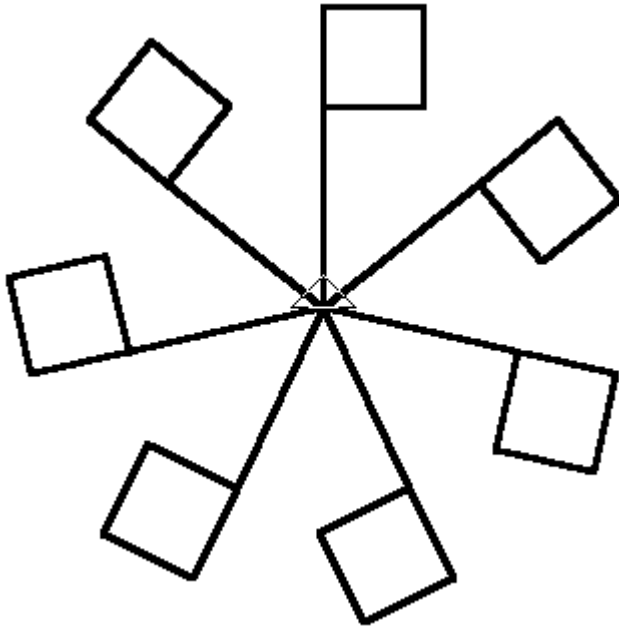


5. repeat 7 [fd 100 tetragono 50 bk 100 rt 360/7]

to tetragono :x

repeat 4 [fd :x rt 90]

end



6. repeat 7 [fd 100 tetragono 50 bk 100 rt 360/7]

7. cs repeat 30 [tetragono 100 rt 360/30]

cs repeat 60 [tetragono 100 rt 360/60]

cs repeat 60 [fd 10 tetragono 100 rt 360/60]

cs repeat 60 [fd 30 tetragono 100 rt 360/60]

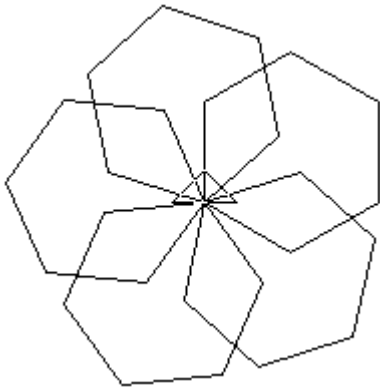
ΠΟΛΥΓΩΝΑ

to polygono :n :x

repeat :n [fd :x rt 360/:n]

end

1. repeat 5 [polygono 6 50 rt 360/5]



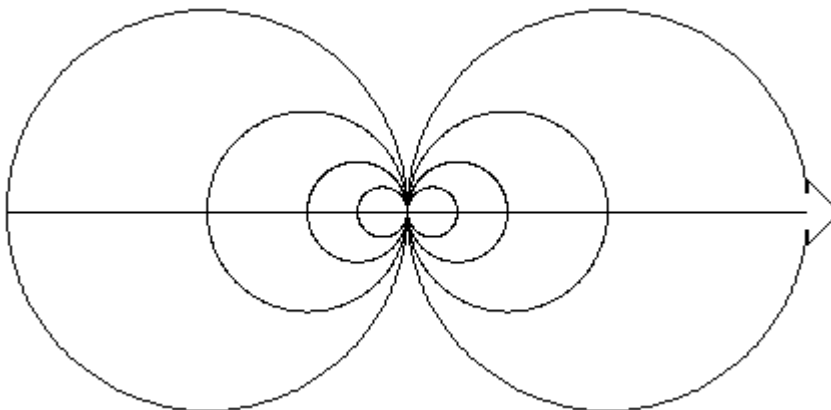
2. Τι παρατηρείτε με την `polygono 30 10`; Πόση ακτίνα έχει ο κύκλος;

Μήκος περιφέρειας = $30 \cdot 10 = 2 \cdot \pi \cdot \rho \Rightarrow \rho = (30 \cdot 10) / 2\pi$

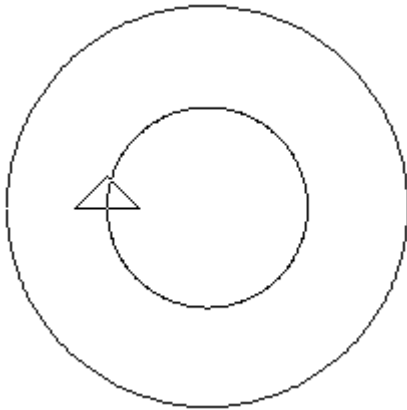
ΚΥΚΛΟΙ

```
to kiklos :r
  repeat 360 [fd 6.28*:r/360 rt 1]
end
```

1.



2. kiklos 100 rt 90 pu fd 50 pd lt 90 kiklos 50



3. to arc :angle :r

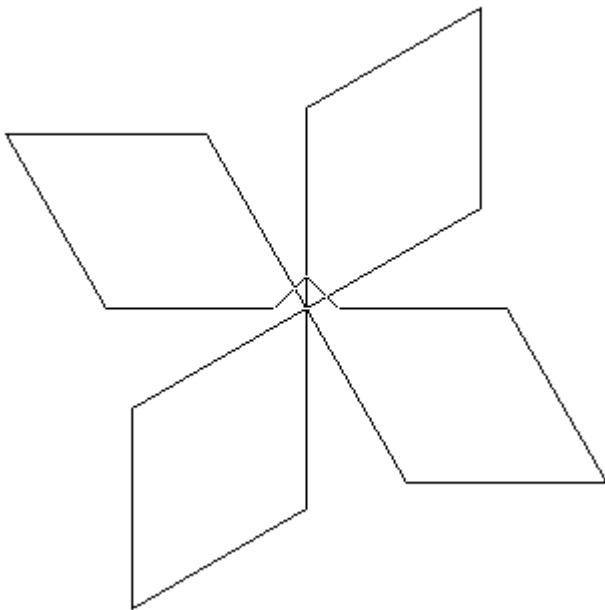
```
repeat :angle [fd (6.28*:r)/360 rt 1]
```

End

ΠΑΡΑΛΛΗΛΟΓΡΑΜΑ

```
to paralilogramo :x :y :angle
repeat 2 [fd :x rt :angle fd :y rt 180-:angle]
end
```

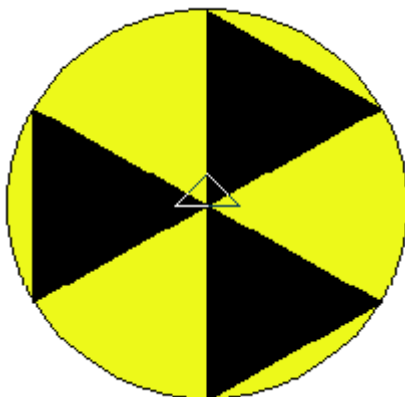
1. paralilogramo 100 200 60



2. cs repeat 4 [paralilogramo 100 100 60 rt 90]

ΣΥΝΔΥΑΣΜΟΙ

1. cs kiklos 100 rt 90 pu fd 2 pd setfc [255 255 0] fill pu bk 2 lt 90 rt 90 fd 100 lt 90 pd repeat 3 [isopleuro 100 rt 10 pu fd 12 pd setfc [0 0 0] fill pu bk 12 lt 10 pd rt 360/3]



2. to mandala :r

```
repeat 10 [kiklos :r arc 360-45 :r rt 45 polygono 4
:r*sqrt(2) fd (:r/2)*sqrt(2) make "r (:r/2)*sqrt(2)]
end
```

3. to mandala-color :r

```
repeat 10 [kiklos :r arc 360-45 :r rt 45 fd 2
make "red random 255
make "green random 255
make "blue random 255
setfc (list :red :green :blue)
fill bk 2 polygono 4 :r*sqrt(2) fd (:r/2)*sqrt(2) make "r
(:r/2)*sqrt(2)]
end
```

ΔΙΑΦΟΡΑ

1. px repeat 10000 [fd 200 rt 179]

2. px repeat 10000 [fd 40 fd 40 bk 80 rt 1]

3. px repeat 10000 [fd 80 bk 80 rt 1]

4. frac 100

to frac :n

```
IF :N>1 [frac :n*.7 rt 60 frac :n*.7 fd :n]
```

end

5. Διερεύνηση ριζών τριωνύμου

to trionimo :a :b :c :N :step

```
cs setpc [255 0 0] rt 90 fd 200 bk 200 lt 90 fd 200 bk
```

```
200 setpc [0 0 0] make "x 0.1 pu setxy 0 :c pd
```

```
repeat :N [make "y :a*:x*:x+:b*:x+:c setxy :x :y
```

```
if (abs :y)<.001 [show 0.1*:x*:x-3*:x+10 label :x]
```

```
make "x :x+:step]
```

end