## Мунтазаи кўпбурчаклар

**t.circle(r, 360, n)**

### Мунтазам кўпбурчакларни чизиш учун t.circle(r, 360, n) буруғидан фойдаланамиз.

Бу ерда r – кўпбурчакка ташқи чизилган айлананинг радиусининг пикселлардаги узунлиги, n – кўпбурчак томонларининг сони.

Радиуси 100 пиксел бўлган айланаги ички чизилган яшил рангдаги мунтазам учбурчак чизамиз

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| import turtle  window = turtle.Screen()  t = turtle.Turtle()  t.color('green')  t.pensize(2)  t.circle(100, 360, 3)  window.mainloop() |  |

Иккита мунтазам учбурчак чизамиз. Биринчисини чизгандан кейин тошбақачани 1800 га буриб иккинчисини чизамиз

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| import turtle  window = turtle.Screen()  t = turtle.Turtle()  t.color('green')  t.pensize(2)  t.circle(50, 360, 3)  t.left(180)  t.circle(50, 360, 3)  window.mainloop() |  |

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| --- | --- |
| import turtle  window = turtle.Screen()  t = turtle.Turtle()  t.color('green')  t.pensize(2)  t.circle(100, 360, 3)  window.mainloop() |  |

Ташқи чизилган айланасининг радиуси 100 пиксел бўлган бешбурчак ичига радиуси 80 пиксел бўлган айланага ички чизиладиган мунтазам бешбурчак чизамиз.

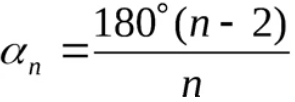
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| import turtle  window = turtle.Screen()  t = turtle.Turtle()  t.color('green')  t.pensize(2)  t.circle(100, 360, 5)  t.circle(80, 360, 5)  window.mainloop() |  |

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| import turtle  window = turtle.Screen()  t = turtle.Turtle()  burchak = 60  t.forward(100)  t.left(60)  t.forward(100)  t.left(60)  t.forward(100)  t.left(60)  window.mainloop() |  |

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| import turtle  window = turtle.Screen()  t = turtle.Turtle()  burchak = 60  t.forward(100)  t.left(180-burchak)  t.forward(100)  t.left(180-burchak)  t.forward(100)  t.left(180-burchak)  window.mainloop() |  |

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| import turtle  window = turtle.Screen()  t = turtle.Turtle()  t.color('green')  n = 3  burchak = 60  for j in range(n):  t.forward(100)  t.left(180-burchak)  window.mainloop() |  |

Мунтазам кўпбурчак ички бурчаклари йиғиндиси 1800(n-2) формулага кўра ҳисобланади.



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| --- | --- |
| import turtle  window = turtle.Screen()  t = turtle.Turtle()  t.color('red')  n = 5  sumangle = 180\*(n-2)  angle = sumangle/n  for j in range(n):  t.forward(100)  t.left(180-angle)  window.mainloop() |  |

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| --- | --- |
| import turtle  window = turtle.Screen()  t = turtle.Turtle()  t.color('blue')  t.speed(5)  def rightangle(n,dlina):  sumangle = 180\*(n-2)  if sumangle%n == 0:  angle = sumangle/n  for j in range(n):  t.forward(dlina)  t.left(180-angle)  for j in range(3,12):  rightangle(j,50)  window.mainloop() |  |

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| --- | --- |
| import turtle  window = turtle.Screen()  t = turtle.Turtle()  t.color('blue')  def kvadr():  for i in range(4):  t.forward(100)  t.left(90)  for j in range(12):  kvadr()  t.left(30)  t.screen.mainloop() |  |

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