

1.
SINIF

ROBOTİK KODLAMA ETKİNLİKLERİ KİTABI



Serpil Ertuna





Ben bütün hayvanları çok severim. Benim bir kedim, bir de köpeğim var. Kedimin adı Mimi, köpeğimin adı Laki. Ama ben bir robot köpeğim olmasını hayal ediyorum. "Çoraplarımı bul!" dediğimde bulan, şarkı söyleyen, işlerime yardım eden bir robot köpeğimin olmasını istiyorum.

Sevgili Çocuklar,
İşte Elif'in hayal ettiği robot köpeğimiz Pafi, karşımızda duruyor. Pafi, şimdi de bize yardım edecek.
Robotik kodlama çalışmalarımızı birlikte yapacağız.





ÖRNEK KODLAMA ÇALIŞMASI

- Kodlamaya başlarken oklarla verilen komutları çizerek ilerliyoruz.
- Oklar bize şöyle komut vermektedir:



Bir birim sağa



Bir birim sola



Bir birim aşağıya

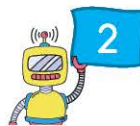
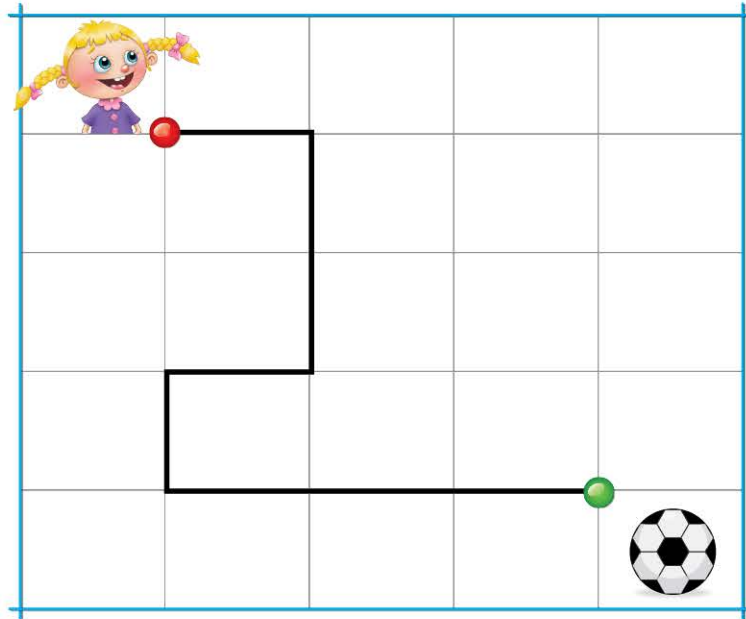


Bir birim yukarıya

Yönerge: Okların komutlarına göre çizerek ilerleyelim ve Elif'i topun yanına götürelim.

- Sıranın başından başlayarak komutları çizelim ve sonuca ulaşalım.

1 → 2 ↓ 1 ← 1 ↓ 3 →

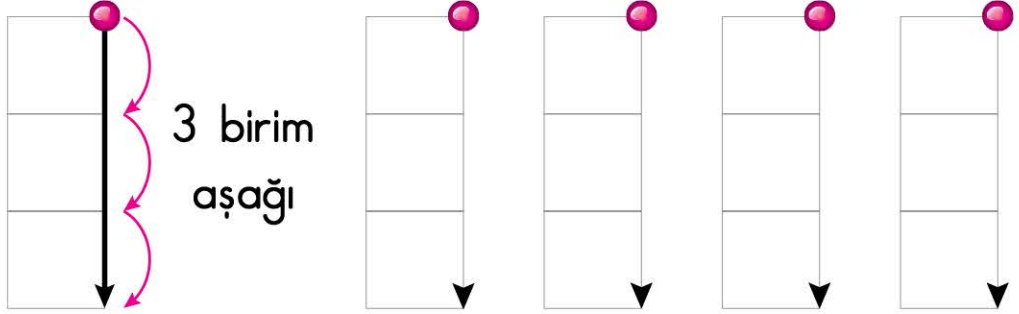




KODLAMA - 1

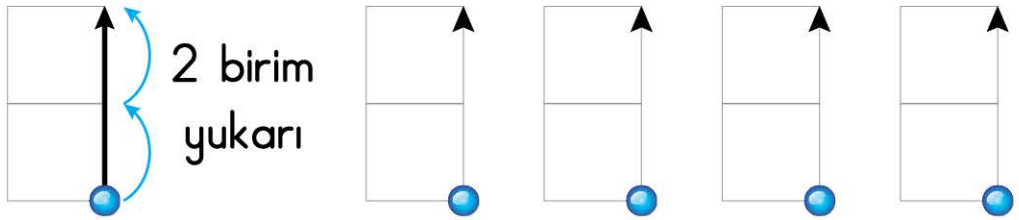
3 ↓

3 birim aşağı inelim .



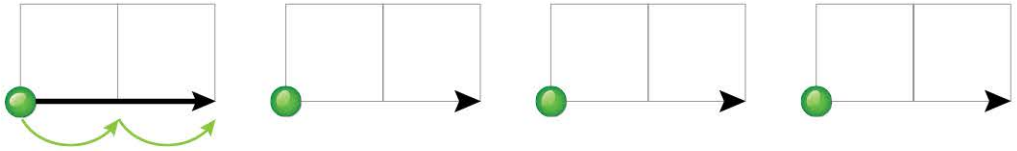
2 ↑

2 birim yukarı çıkalım.



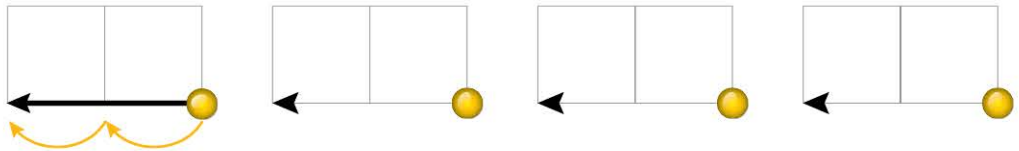
2 →

2 birim sağa gidelim.



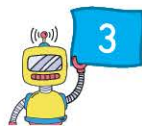
2 ←

2 birim sola gidelim.



3 →

3 birim sağa gidelim.

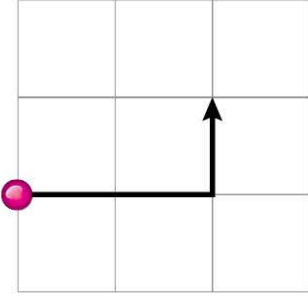




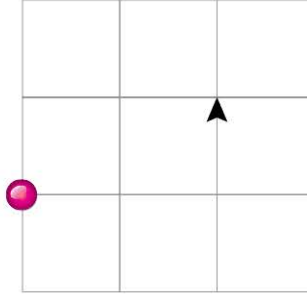
KODLAMA - 2

Noktalardan başlayarak okların gösterdiği komutları baştaki örneğe göre çizelim.

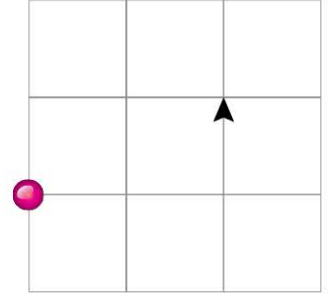
2 → 1 ↑



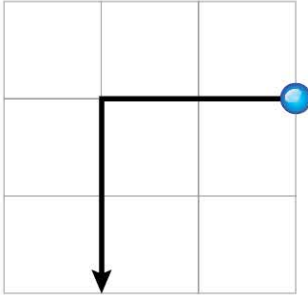
2 → 1 ↑



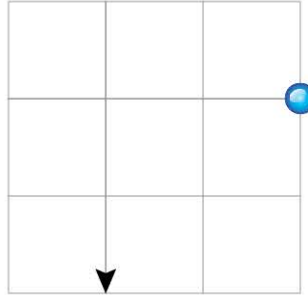
2 → 1 ↑



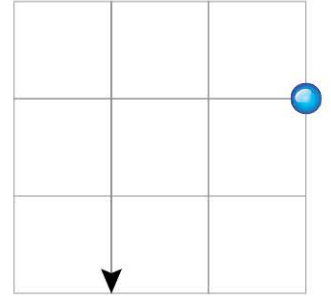
2 ← 2 ↓



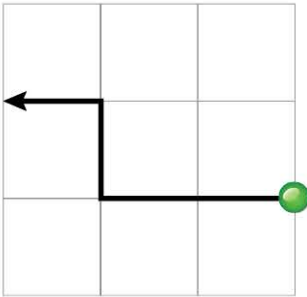
2 ← 2 ↓



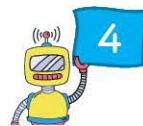
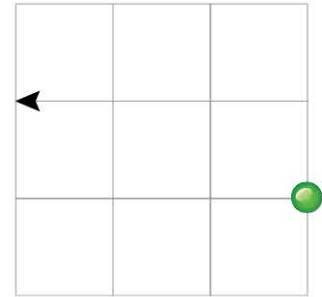
2 ← 2 ↓



2 ← 1 ↑ 1 ←



2 ← 1 ↑ 1 ←



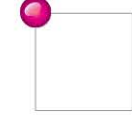
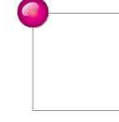
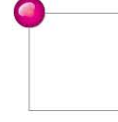
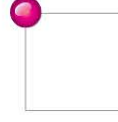
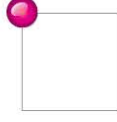
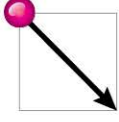


KODLAMA - 3

1



Bir birimlik aşağı çapraz çizgiler çizelim.



1



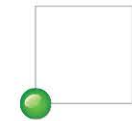
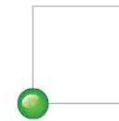
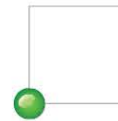
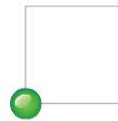
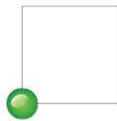
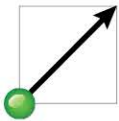
Bir birimlik aşağı çapraz çizgiler çizelim.



1



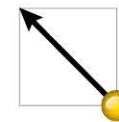
Bir birimlik yukarı çapraz çizgiler çizelim.



1



Bir birimlik yukarı çapraz çizgiler çizelim.



1



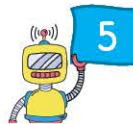
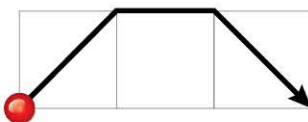
1



1



Okların komutlarını çizelim.



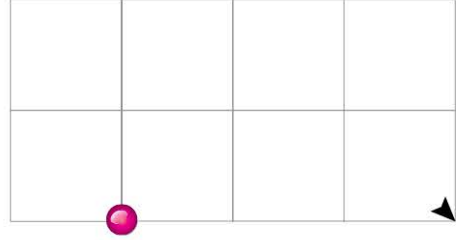
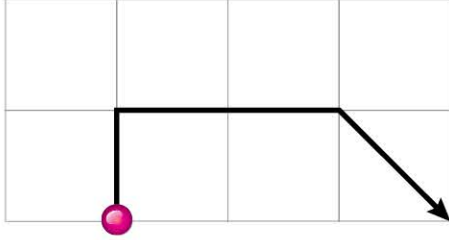


KODLAMA - 4

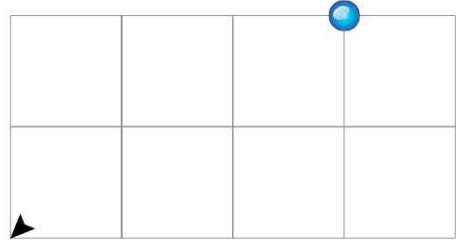
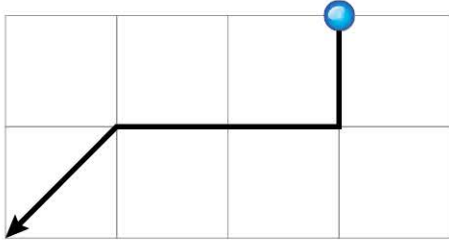
Noktalardan başlayarak okların gösterdiği komutları baştaki örneğe göre çizelim.



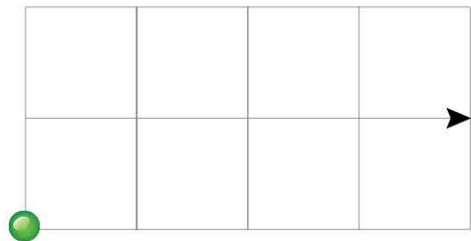
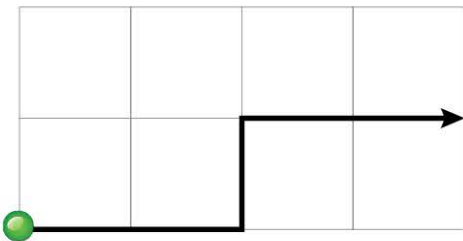
(1 birim yukarı, 2 birim sağa,
1 birim çapraz)



(1 birim aşağı, 2 birim sola,
1 birim çapraz)

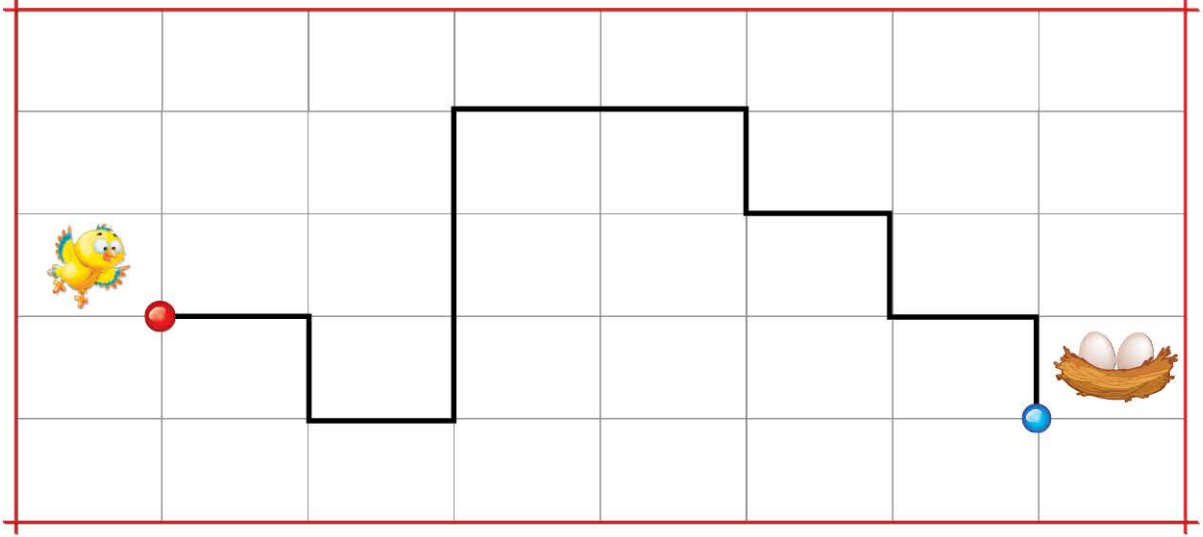


(2 birim sağa, 1 birim yukarı,
2 birim sağa)





KODLAMA - 5

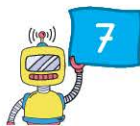


Pafi, okların komutlarına dikkat ederek yukarıdaki kodlamayı yaptı. Aynı komutlara dikkat ederek aynı kodlamayı biz de yapalım.



● Başlangıç noktası

● Bitiş noktası



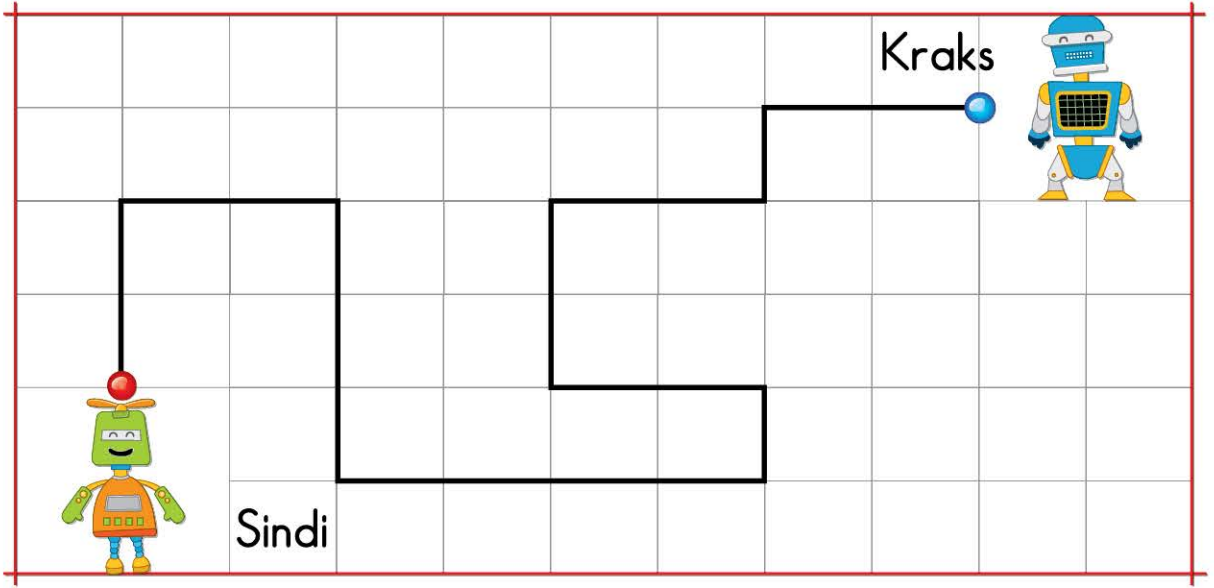


ROBOTİK KODLAMA ETKİNLİKLERİ

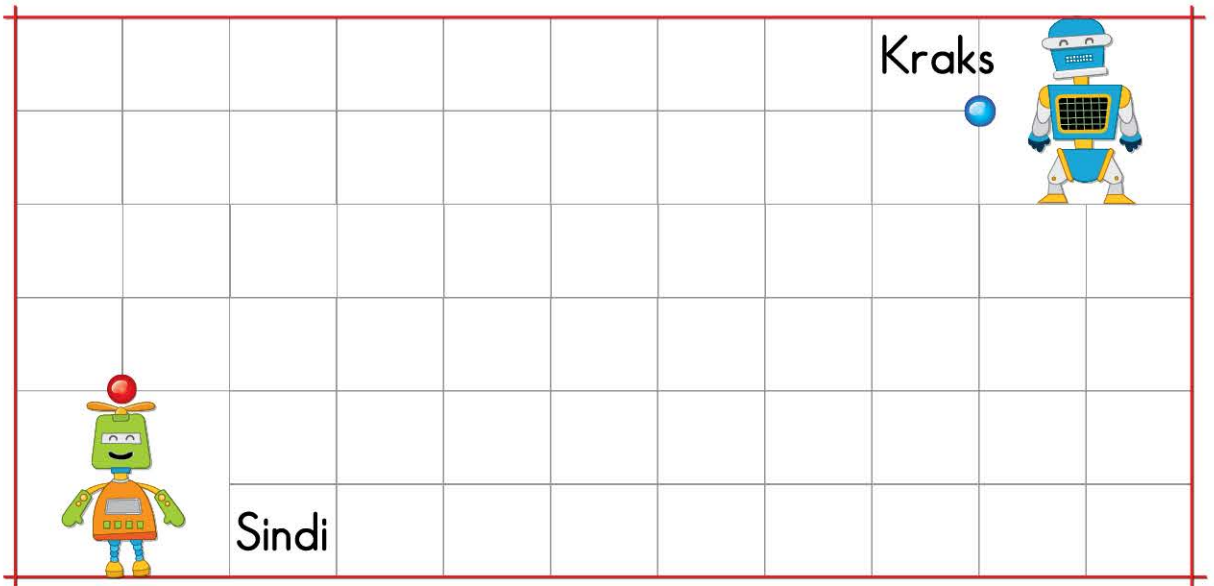
KODLAMA - 6



Sindi robot ile Kraks robot alışveriş yapacaklar. Onları buluşturmak için aşağıdaki kodlamayı yaptım.



Yukarıdaki kodlamayı aşağıda uygulayalım.



● Başlangıç noktası

● Bitiş noktası

