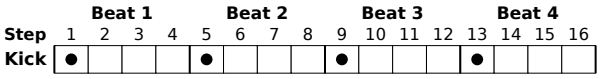
Step-Sequencer Beat Lab

Read drum grids, count subdivisions, and build controlled variations.

Name _____ Date _____

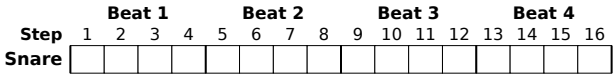
Each 4/4 loop has 16 equal sixteenth-note steps: 4 steps per beat.
A black dot marks a hit at the start of that step.

1. How many quarter-note beats fill this entire 16-step loop?



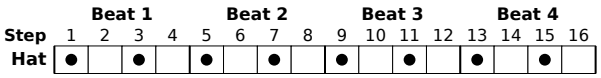
One 4/4 measure

2. Put snare hits on beats 2 and 4. Which steps should be on?



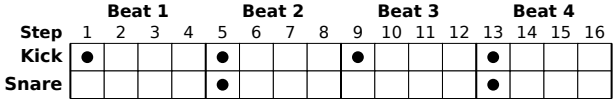
Four steps per beat

3. How far apart are neighboring hat hits, in beats?



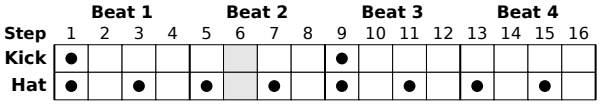
4 steps = 1 beat; black dot = hit

4. On which beats do kick and snare hits start together?



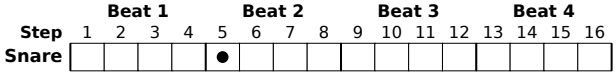
4 steps = 1 beat; black dot = hit

5. At step 6, which drum hits start?



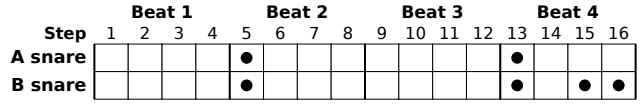
4 steps = 1 beat; black dot = hit

6. Move the snare one sixteenth later. Which step is now on?



4 steps = 1 beat; black dot = hit

7. Which beats stay unchanged when A becomes B?

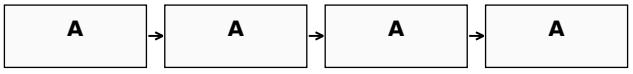


4 steps = 1 beat; black dot = hit

8. Only tempo rises. What happens to the pattern?

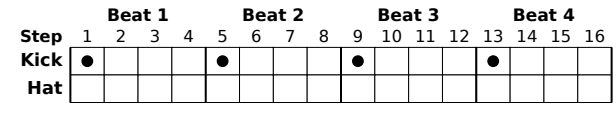
Before	After
80 BPM Hits: 1, 5, 9, 13	→ 120 BPM Hits: 1, 5, 9, 13

9. A lasts 4 beats. How many beats do four repeats last?



Each A = 4 beats; no overlap or gap

10. Add hats halfway between each kick. Which steps need hats?



The pattern loops after step 16

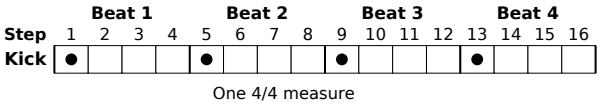
Step-Sequencer Beat Lab

Read drum grids, count subdivisions, and build controlled variations.

ANSWER KEY Equivalent brief wording is acceptable.

Each 4/4 loop has 16 equal sixteenth-note steps: 4 steps per beat.
A black dot marks a hit at the start of that step.

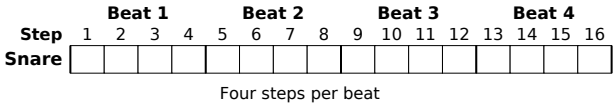
1. How many quarter-note beats fill this entire 16-step loop?



One 4/4 measure

4 beats.

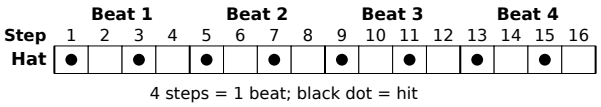
2. Put snare hits on beats 2 and 4. Which steps should be on?



Four steps per beat

Steps 5 and 13.

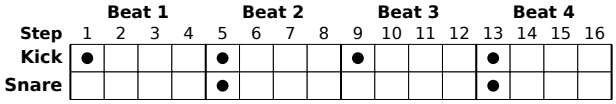
3. How far apart are neighboring hat hits, in beats?



4 steps = 1 beat; black dot = hit

1/2 beat.

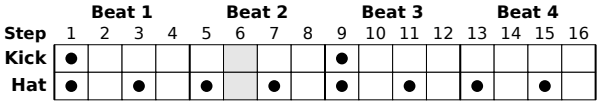
4. On which beats do kick and snare hits start together?



4 steps = 1 beat; black dot = hit

Beats 2 and 4.

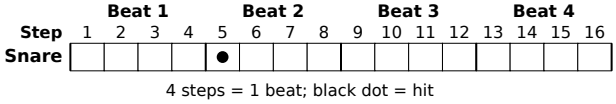
5. At step 6, which drum hits start?



4 steps = 1 beat; black dot = hit

None.

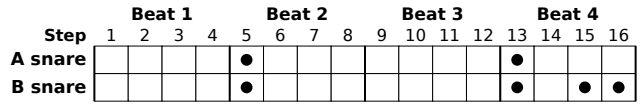
6. Move the snare one sixteenth later. Which step is now on?



4 steps = 1 beat; black dot = hit

Step 6.

7. Which beats stay unchanged when A becomes B?



4 steps = 1 beat; black dot = hit

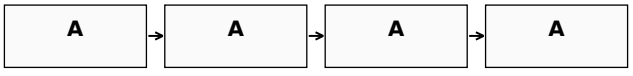
Beats 1, 2, and 3.

8. Only tempo rises. What happens to the pattern?

Before	**After**
80 BPM Hits: 1, 5, 9, 13	→ 120 BPM Hits: 1, 5, 9, 13

Same hit positions; it plays faster.

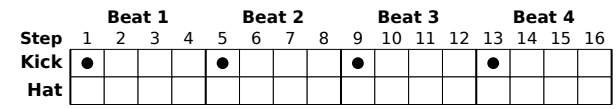
9. A lasts 4 beats. How many beats do four repeats last?



Each A = 4 beats; no overlap or gap

16 beats.

10. Add hats halfway between each kick. Which steps need hats?



The pattern loops after step 16

Steps 3, 7, 11, and 15.