Quick Exercise

What kind of sound does this method ...

```
public Sound makeSound1( int seconds )
{
  int   length = framesFor(seconds);
  Sound result = new Sound( length );
  for (int i = 0; i < length; i++ )
    result.setSampleValueAt( i, X );
  return result;
}
```

... produce for these values of **X**:

i

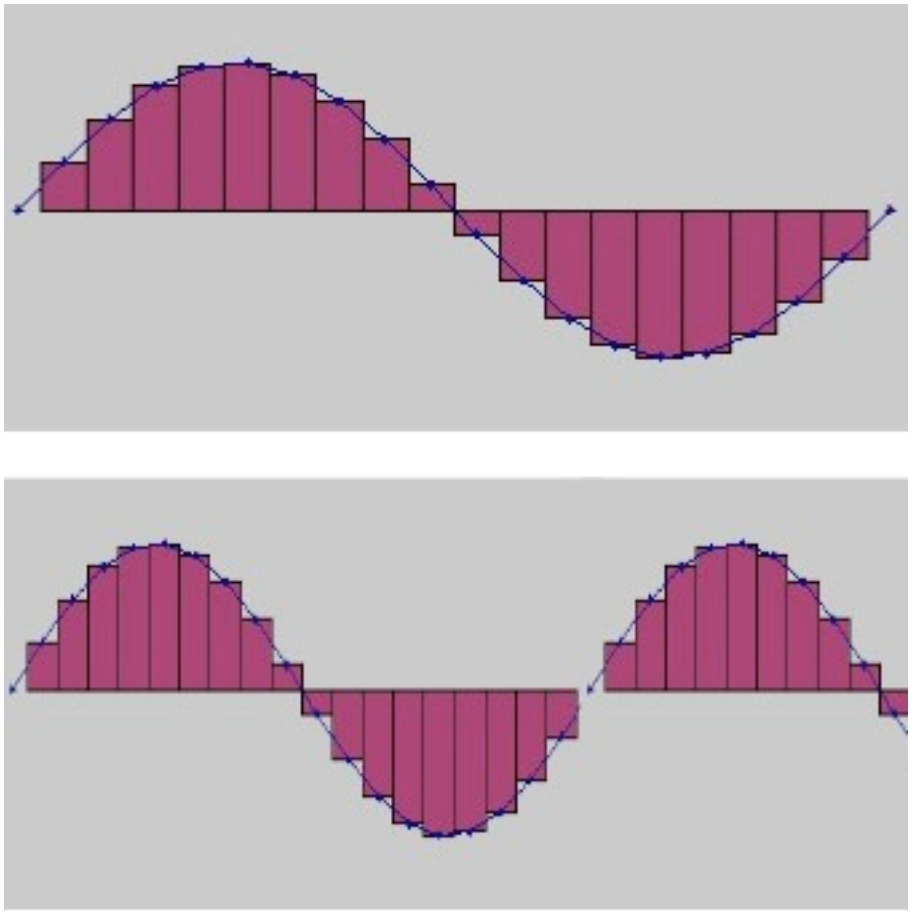
10*i

i*i

Open Problem #1

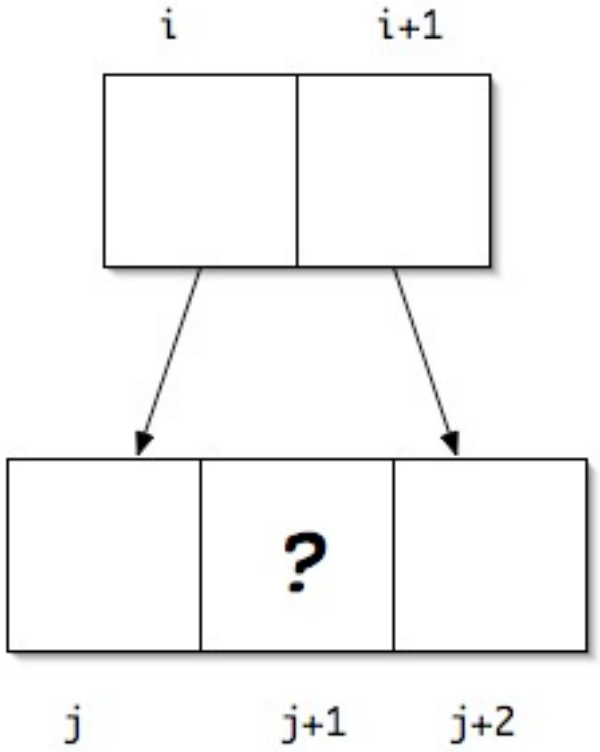
Eugene the Chipmunk

Changing a Sound's Frequency

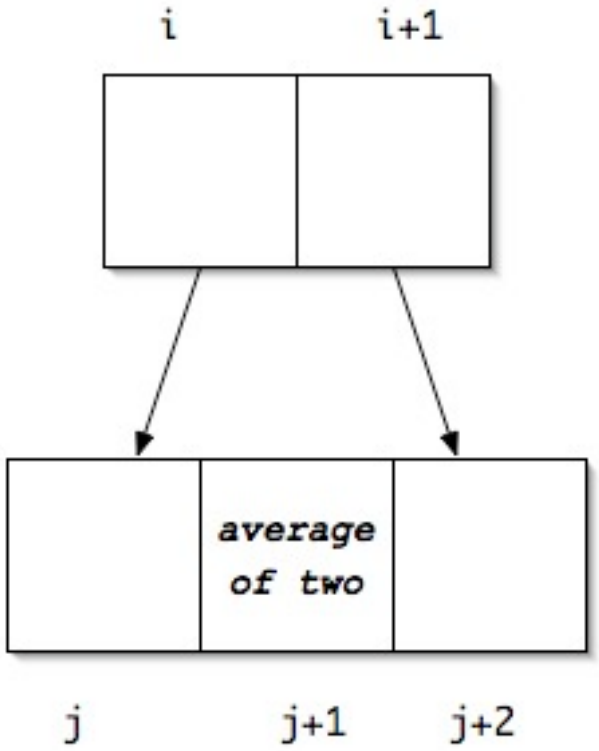


How can we recreate the top curve?

Solution #1



Solution #2



Open Problem #2

Negating an image was easy.

We inverted an image, but...

Exercise

Let's try inverting at the middle value between the maximum and minimum values, rather than at 0.

Write Java statements to...

1. ... find that midpoint.
2. ... for a given sample in slot i,
   find the corresponding value
   on the other side of the midpoint.

You may assume the existence of methods `maximumValue()` *and* `minimumValue()`.

Ack!

Still no change in the sound.

Ack!

Still no change in the sound

BECAUSE

still no change in shape of waves!

Last Exercise for a While

Write a method called `reverse()`
that creates a new sound,
copies this into, but in reverse order,
and returns the new sound as its answer.

Upcoming Days

THU Finish reading Chapter 9.
Begin work on Homework 5.

TUE No class — Mike Volz in the lab
WED Lab as usual — bring headphones
THU No class — Mike Volz in the lab

TUE Submit Homework 5.
Read Chapter 10.