

Violin Harmonics

Natural Harmonics

Gretchen

Sounds

same note octave octave+5th 2 octaves

E string

Notated

Detailed description: This system shows the first four natural harmonics on the E string. The top staff, labeled 'Sounds', shows the actual pitch of each harmonic. The bottom staff, labeled 'Notated', shows the corresponding written notes. The first harmonic is the same note as the open string (E). The second is one octave higher. The third is one octave plus a fifth higher. The fourth is two octaves higher. The notation includes a diamond symbol for the first three harmonics and a sharp symbol for the fourth. The number 8va is written above the fourth harmonic.

5

Sounds

1/2 string 1/3 string 1/4 string 1/5 string

A string

Notated

Detailed description: This system shows the first four natural harmonics on the A string. The top staff, labeled 'Sounds', shows the actual pitch of each harmonic. The bottom staff, labeled 'Notated', shows the corresponding written notes. The first harmonic is at the midpoint (1/2 string), the second at the one-third point (1/3 string), the third at the one-fourth point (1/4 string), and the fourth at the one-fifth point (1/5 string). The notation includes a diamond symbol for the first three harmonics and a sharp symbol for the fourth. The number 5 is written above the first harmonic, and 8va is written above the fourth harmonic.

9

Sounds

D string

Notated

Detailed description: This system shows the first four natural harmonics on the D string. The top staff, labeled 'Sounds', shows the actual pitch of each harmonic. The bottom staff, labeled 'Notated', shows the corresponding written notes. The notation includes a diamond symbol for the first three harmonics and a sharp symbol for the fourth.

13

Sounds

G string

Notated

Detailed description: This system shows the first four natural harmonics on the G string. The top staff, labeled 'Sounds', shows the actual pitch of each harmonic. The bottom staff, labeled 'Notated', shows the corresponding written notes. The notation includes a diamond symbol for the first three harmonics and a sharp symbol for the fourth.

Violin Harmonics
Artificial Harmonics

17

Sounds

Notated

P4 between the notes

sounds up two octaves from the bottom note

Detailed description: This musical example shows four measures of artificial P4 harmonics. The top staff, labeled 'Sounds', shows the actual pitch heard: a series of four notes (E, F, G, A) that are two octaves higher than the notes written in the bottom staff. The bottom staff, labeled 'Notated', shows the written notes: E, F, G, and A. The first measure is marked with '17'. The second measure has the text 'P4 between the notes' and 'sounds up two octaves from the bottom note'. The third measure has a sharp sign (#) above the note G. The fourth measure has a sharp sign (#) above the note A.

21

Sounds

Notated

P5 between notes

sounds up one octave from the top note

Detailed description: This musical example shows four measures of artificial P5 harmonics. The top staff, labeled 'Sounds', shows the actual pitch heard: a series of four notes (E, F, G, A) that are one octave higher than the notes written in the bottom staff. The bottom staff, labeled 'Notated', shows the written notes: E, F, G, and A. The first measure is marked with '21'. The second measure has the text 'P5 between notes' and 'sounds up one octave from the top note'. The fourth measure ends with a double bar line.