


```

% Questions 1--4 - samples
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
for cntSynth=1:length(synthTypes)
    instrument.sound=synthTypes{cntSynth};
    [soundSample]=generate_sound(instrument,notes{3}, constants);

    fprintf(STDOUT,'For the %s synthesis type...\n',synthTypes{cntSynth});

    fprintf(STDOUT,'Playing the Sample Note');
    player = audioplayer(soundSample,constants.fs);
    playblocking(player);
    % soundsc(soundSample,constants.fs);
    % When I used soundsc, it all sounds at the same time.
    fprintf('\n');

end % for cntSynth;

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Question 5 - chords
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
    instrument.temperament='Just'; % I added this line because you never go to just
    %I will just assume that the key is C

for cntSynth=1:length(synthTypes)
    % major chords
    instrument.mode = 'Major';
    instrument.sound=synthTypes{cntSynth};
    [soundMajorChordJust]=generate_sound(instrument,notes,constants);
    instrument.temperament='Equal';
    [soundMajorChordEqual]=generate_sound(instrument,notes,constants);

    % minor chords
    notes{2}.note='Eb4';
    instrument.mode = 'Minor';
    [soundMinorChordEqual]=generate_sound(instrument,notes,constants);
    instrument.temperament='Just';
    [soundMinorChordJust]=generate_sound(instrument,notes,constants);
    notes{2}.note='E4';

    fprintf(STDOUT,'For the %s synthesis type...\n',synthTypes{cntSynth})

    disp('Playing the Just Tempered Major Chord');
    player = audioplayer(soundMajorChordJust,constants.fs);
    playblocking(player);
    %soundsc(soundMajorChordJust,constants.fs);

    disp('Playing the Equal Tempered Major Chord');
    player = audioplayer(soundMajorChordEqual,constants.fs);
    playblocking(player);
    %soundsc(soundMajorChordEqual,constants.fs);

    disp('Playing the Just Tempered Minor Chord');
    player = audioplayer(soundMinorChordJust,constants.fs);
    playblocking(player);
    %soundsc(soundMinorChordJust,constants.fs);

    disp('Playing the Equal Tempered Minor Chord');
    player = audioplayer(soundMinorChordEqual,constants.fs);
    playblocking(player);
    %soundsc(soundMinorChordEqual,constants.fs);

```

```
fprintf('\n');  
  
end % for cntSynth;
```

```
For the Additive synthesis type...  
Playing the Sample Note  
For the Subtractive synthesis type...  
Playing the Sample Note  
For the FM synthesis type...  
Playing the Sample Note  
For the Waveshaper synthesis type...  
Playing the Sample Note  
For the Additive synthesis type...  
Playing the Just Tempered Major Chord  
Playing the Equal Tempered Major Chord  
Playing the Just Tempered Minor Chord  
Playing the Equal Tempered Minor Chord
```

```
For the Subtractive synthesis type...  
Playing the Just Tempered Major Chord  
Playing the Equal Tempered Major Chord  
Playing the Just Tempered Minor Chord  
Playing the Equal Tempered Minor Chord
```

```
For the FM synthesis type...  
Playing the Just Tempered Major Chord  
Playing the Equal Tempered Major Chord  
Playing the Just Tempered Minor Chord  
Playing the Equal Tempered Minor Chord
```

```
For the Waveshaper synthesis type...  
Playing the Just Tempered Major Chord  
Playing the Equal Tempered Major Chord  
Playing the Just Tempered Minor Chord  
Playing the Equal Tempered Minor Chord
```