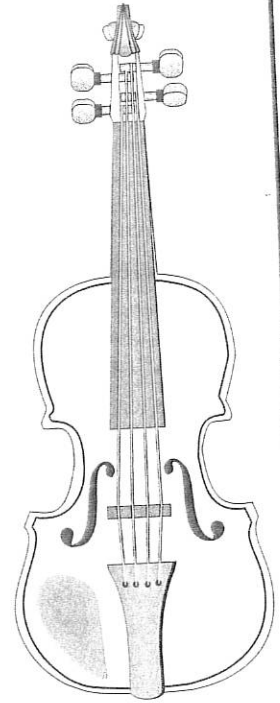


## Questions on Sound

Use these facts to answer the following questions:

These points are true about violins:

- The string which gives the highest notes is much thinner than the string which gives the lowest notes.
- When the violinist wants to tune the instrument (s)he uses the pegs at the top to tighten and loosen the strings. Tightening the string raises the pitch of the note.
- To make different notes on the same string, the violinist presses down on the string at different places.



a) How will a thin string vibrate compared to a thick string?  
 .....

b) How does tightening a string change its vibration?  
 .....

c) In what way does varying the length of the string change the vibration?  
 .....

How does this affect the sound that's produced? .....

d) Complete these sentences by circling the correct words in the brackets.

A high pitched note has a ( high / low ) frequency of vibration. A string will vibrate faster if it has ( more / less ) tension, is ( longer / shorter ), or has ( more / less ) mass.

Q4 This experiment is one you are very likely to have seen (probably more than once)!

a) What are the 'jobs' of each of:  
 the vacuum pump and the foam block?  
 .....

b) What is the result of this experiment? .....

c) What is the conclusion of this experiment? .....

