



**Aurally Measuring Octave Inharmonicity
in Order to Determine the Best Sized Octave
(Only used for A3A4 and F3F4 in the Go APE Method)**

Octaves

4:2 test
 $M3 = M10$

6:3 Test
 $m3 = M6$

$M3 = M10$ & $m3 = M6$

Narrow

Wide

$M3 > M10$
 $m3 > M6$

$M3 < M10$
 $m3 < M6$

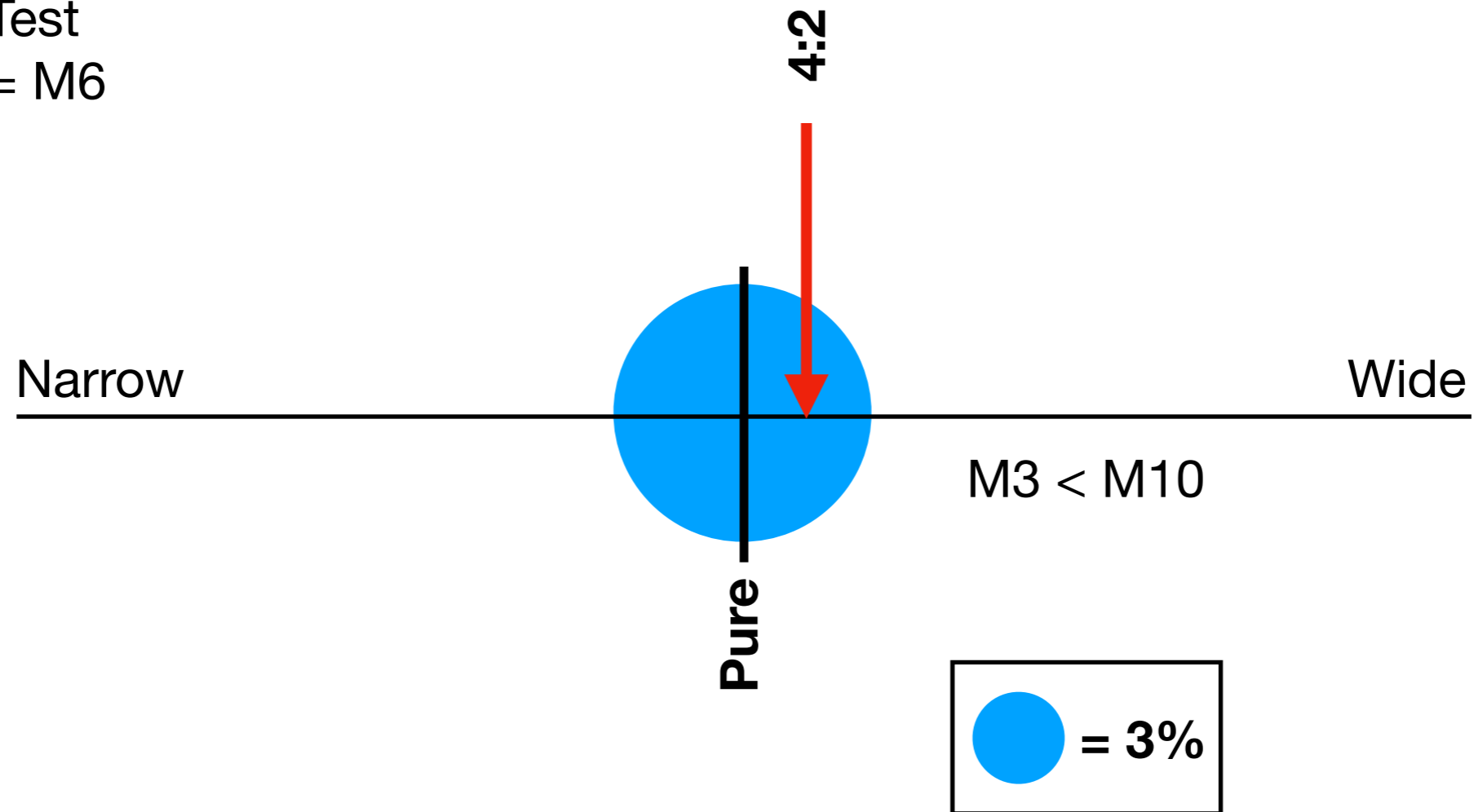
Pure

Octaves

4:2 test
M3 = M10

Actually a wide 4:2 but we can't tell.

6:3 Test
m3 = M6



Octaves

Ideal piano

4:2 test
M3 = M10

6:3 Test
m3 = M6

6:3
4:2

No Inharmonicity

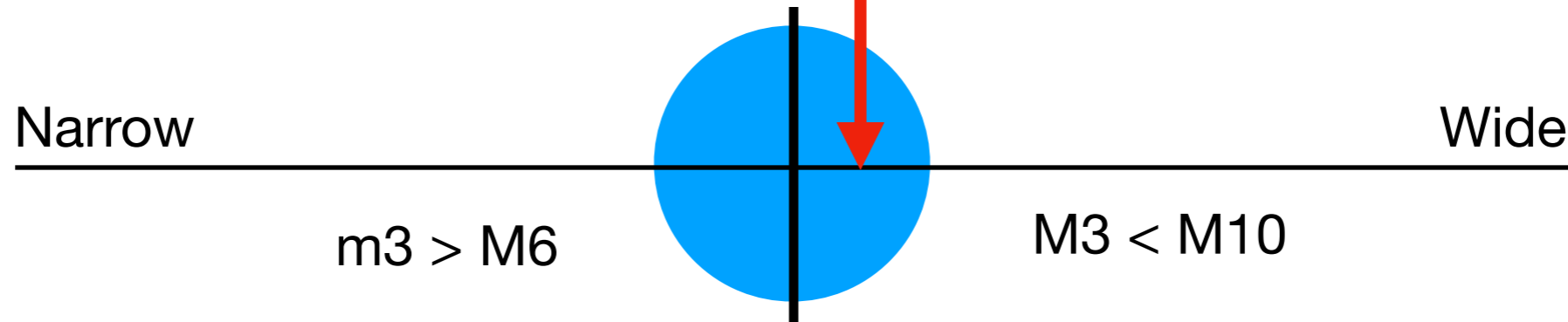
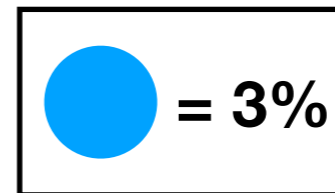
Narrow

Wide

$m3 > M6$

$M3 < M10$

Pure



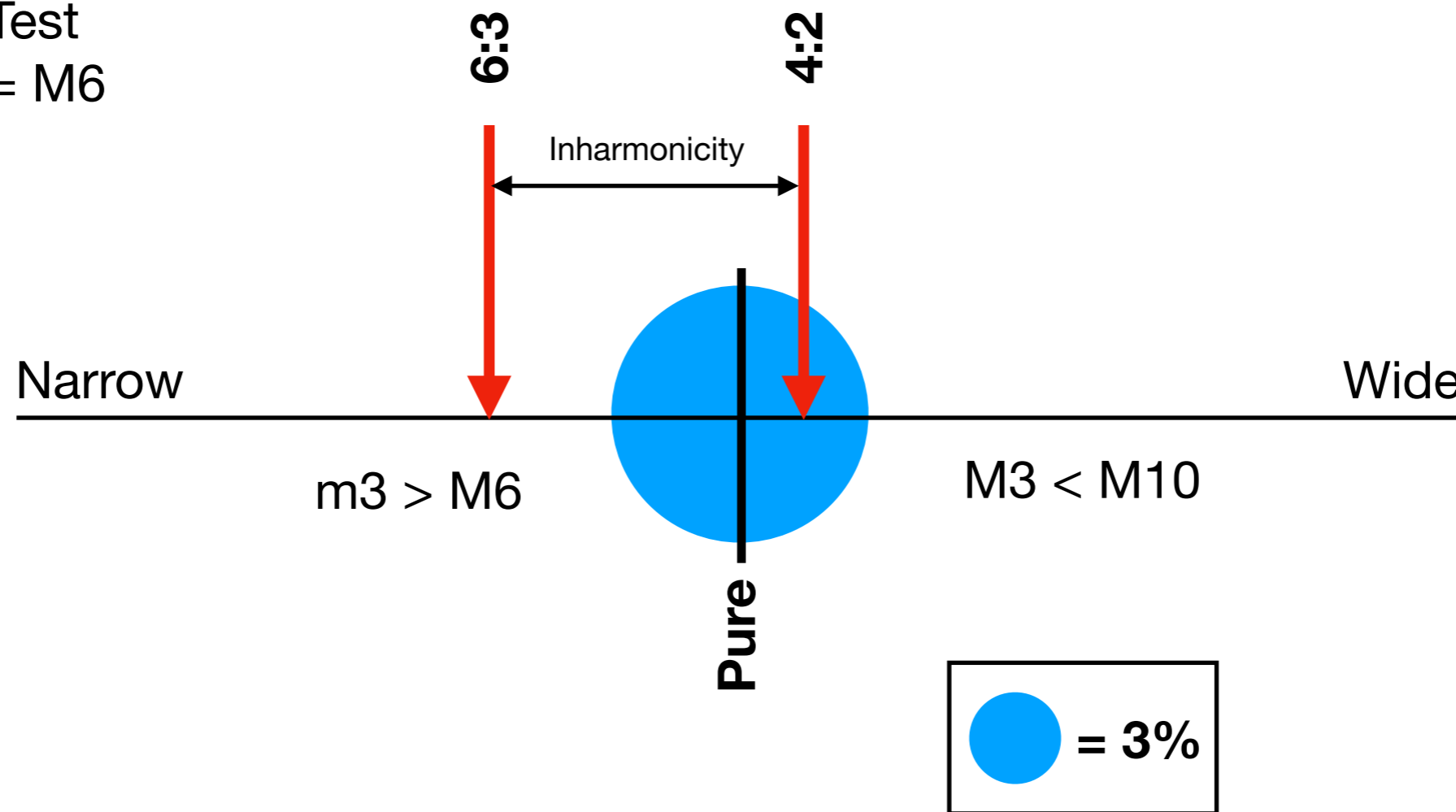
Octaves

Actual piano

4:2 test
 $M3 = M10$

Discernibly narrow 6:3, but sounds like a pure 4:2

6:3 Test
 $m3 = M6$

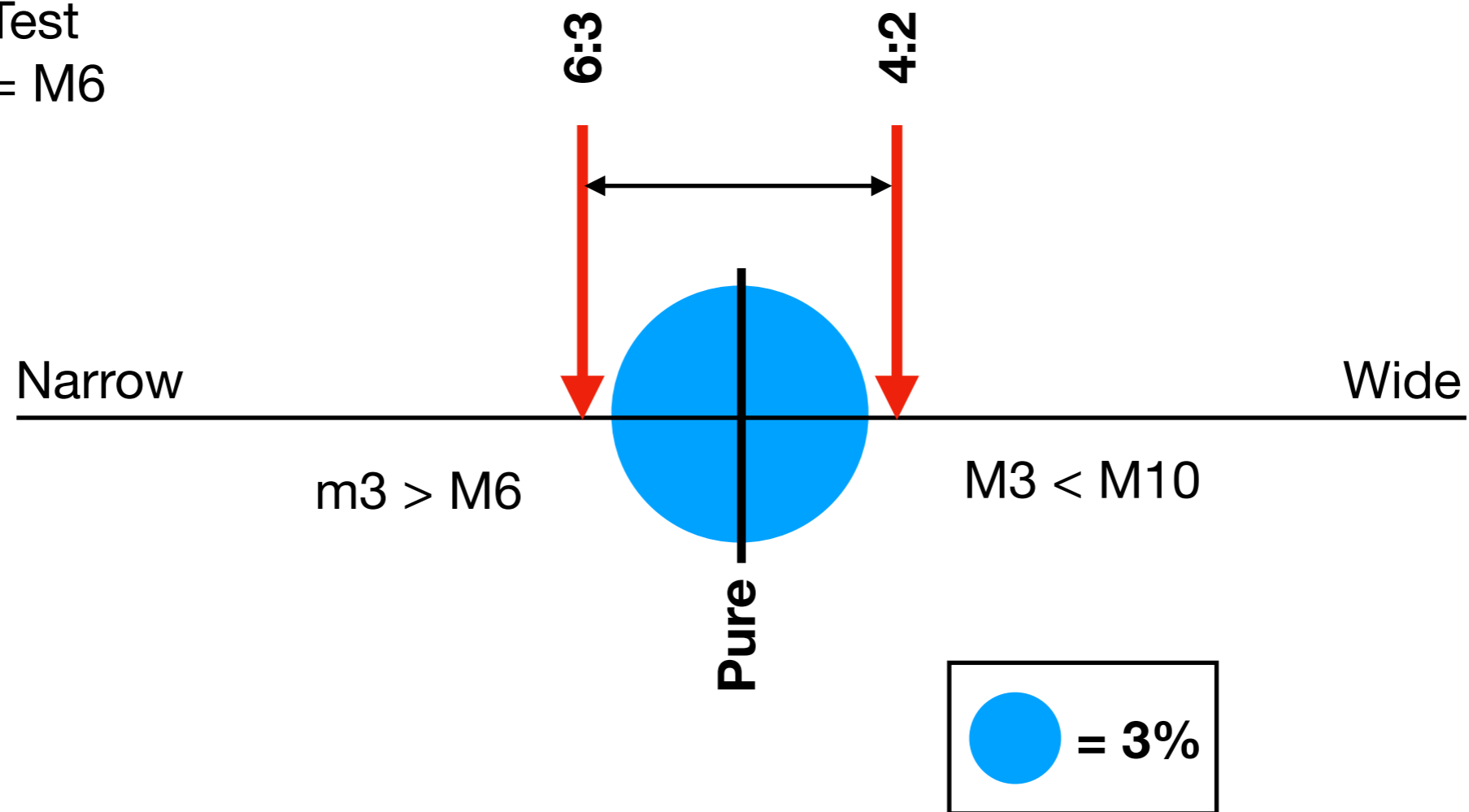


Octaves

4:2 test
M3 = M10

Tuneable as a wide 4:2/narrow 6:3

6:3 Test
m3 = M6

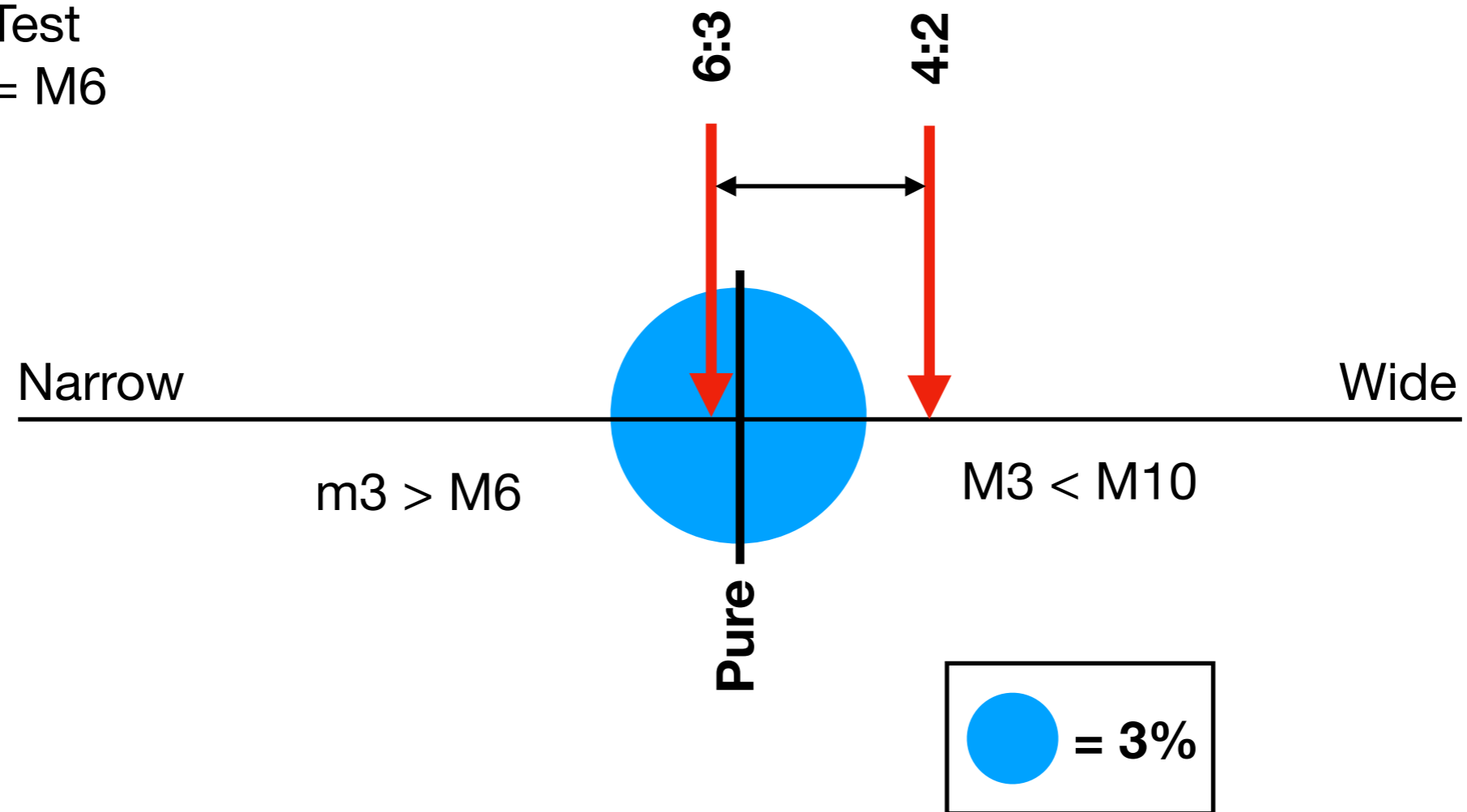


Octaves

4:2 test
M3 = M10

6:3 Test
m3 = M6

Different Piano

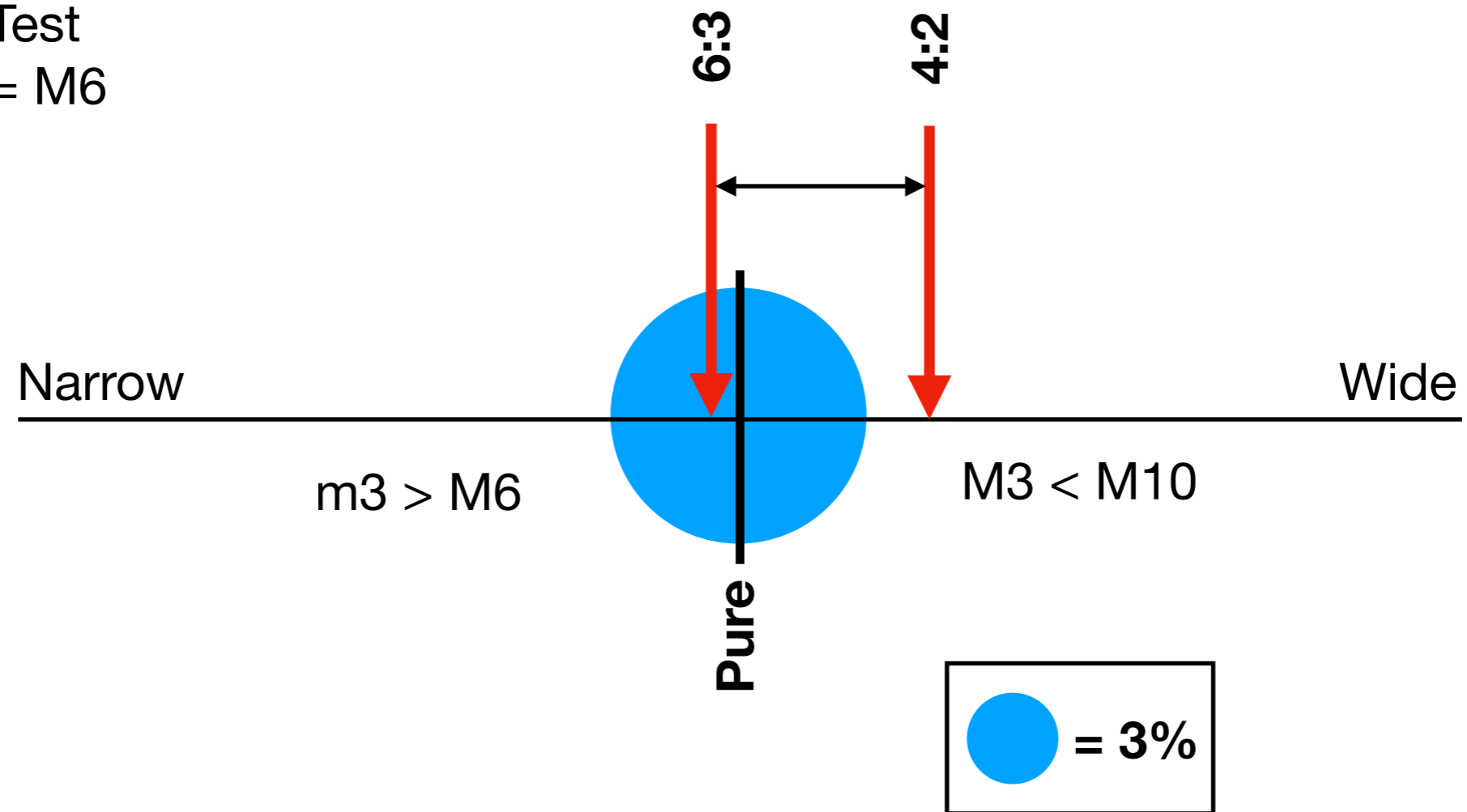


Octaves

4:2 test
 $M3 = M10$

Discernibly wide 4:2, but sounds like a pure 6:3

6:3 Test
 $m3 = M6$

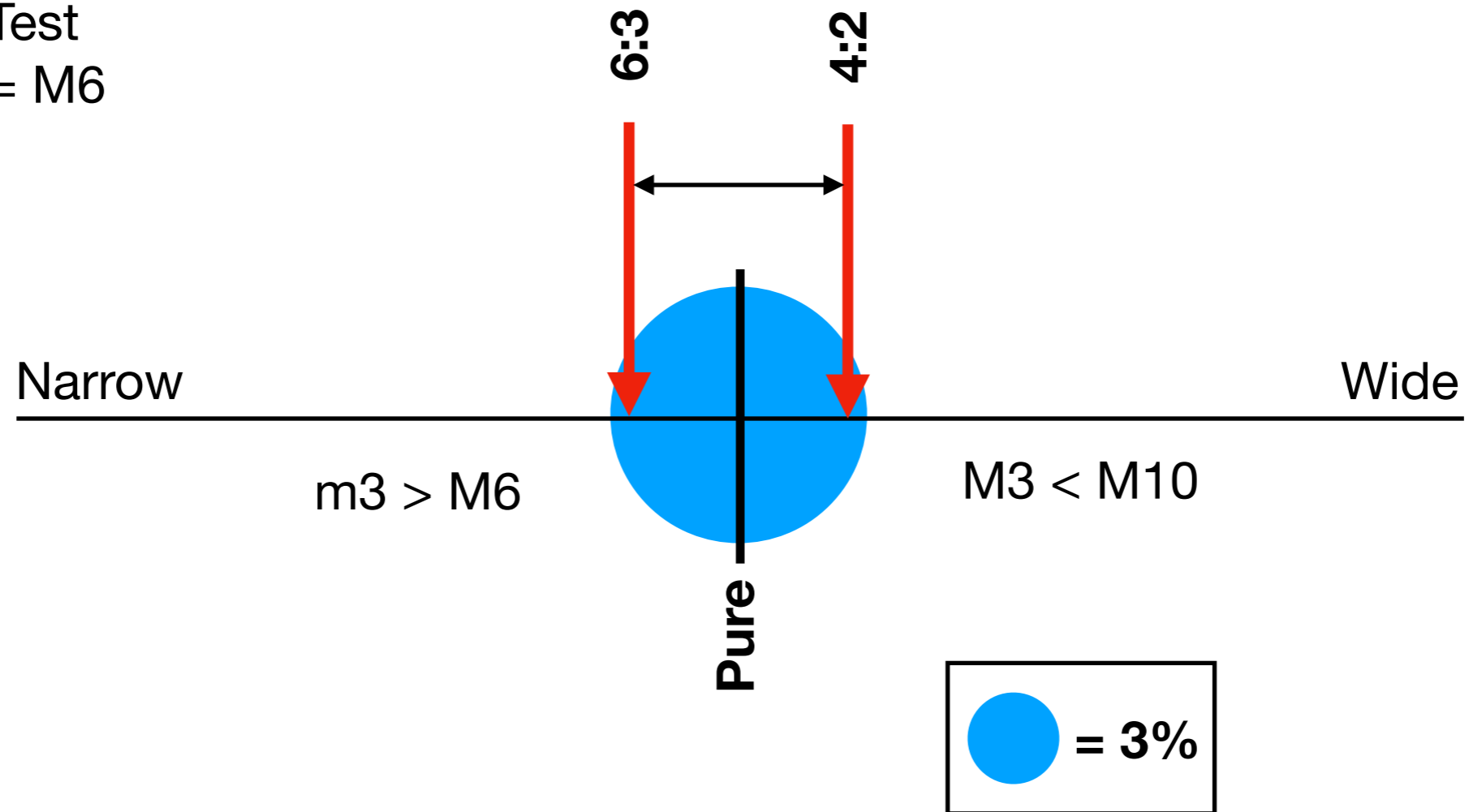


Octaves

In trying to tune this octave as a wide 4:2/narrow 6:3 we find that it is impossible. When we get close to the wide 4:2/narrow 6:3 size, the octave seems to sound like a pure 4:2/pure 6:3

4:2 test
M3 = M10

6:3 Test
m3 = M6

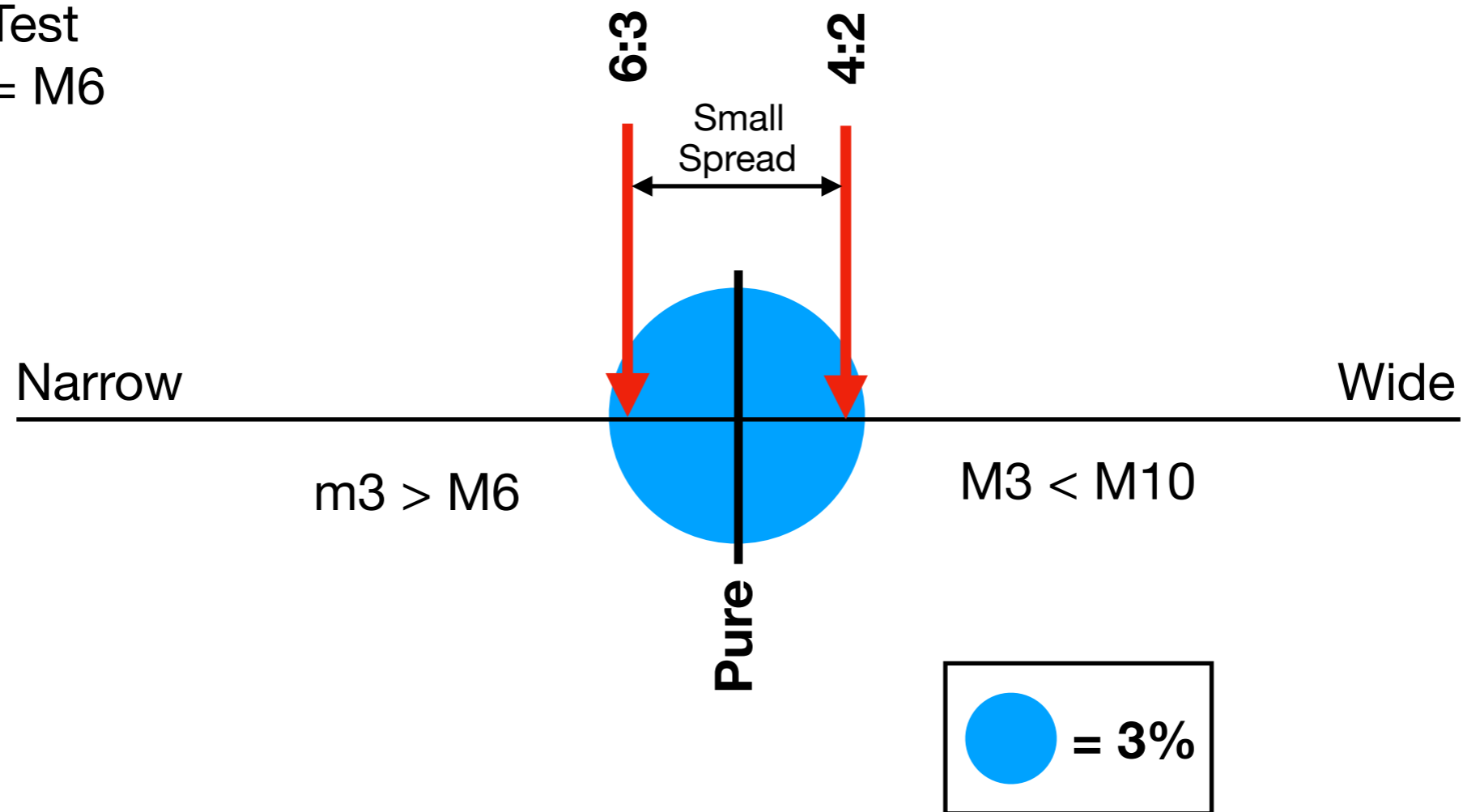


Octaves

4:2 test
 $M3 = M10$

6:3 Test
 $m3 = M6$

Pure 6:3

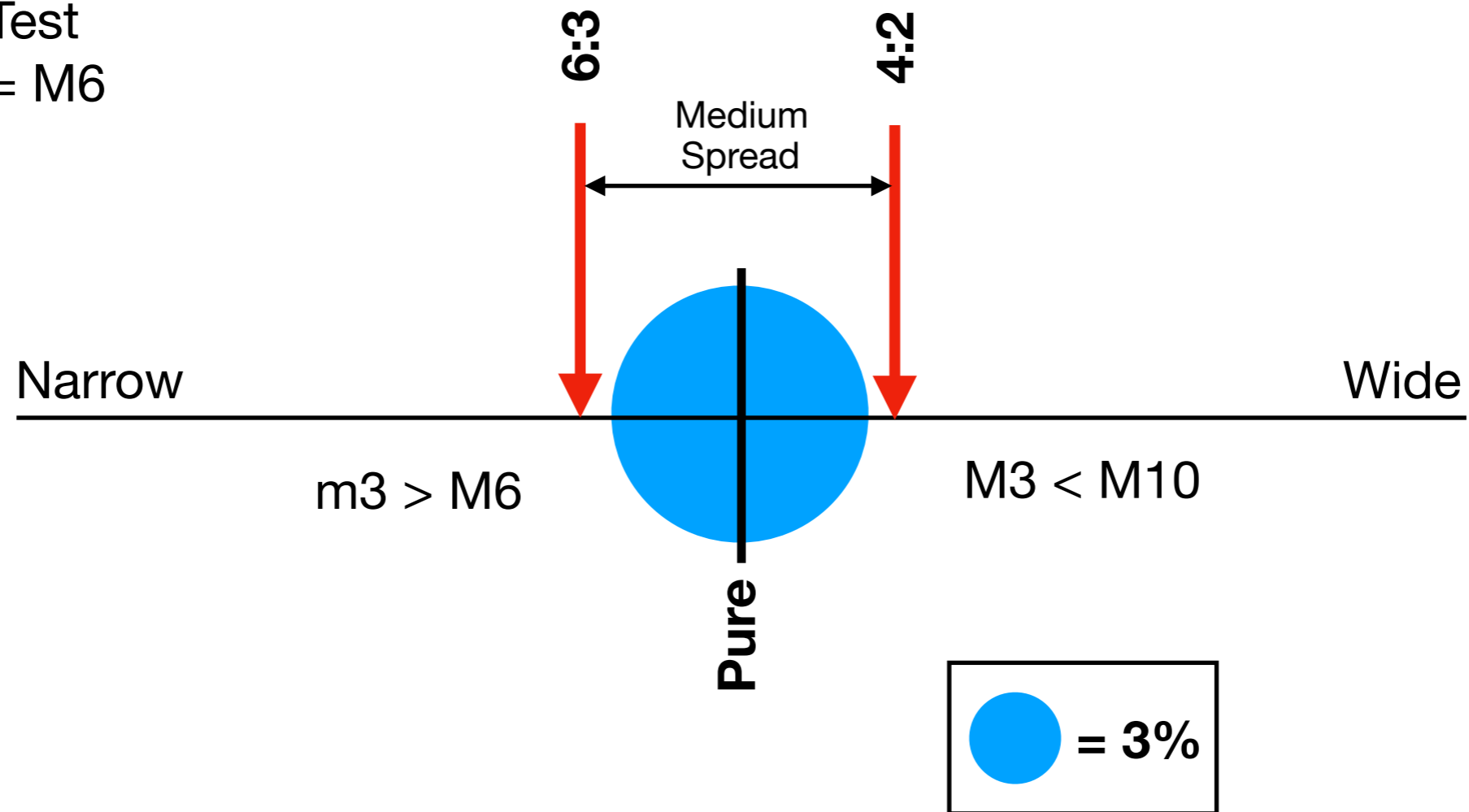


Octaves

4:2 test
M3 = M10

6:3 Test
m3 = M6

Narrow 6:3

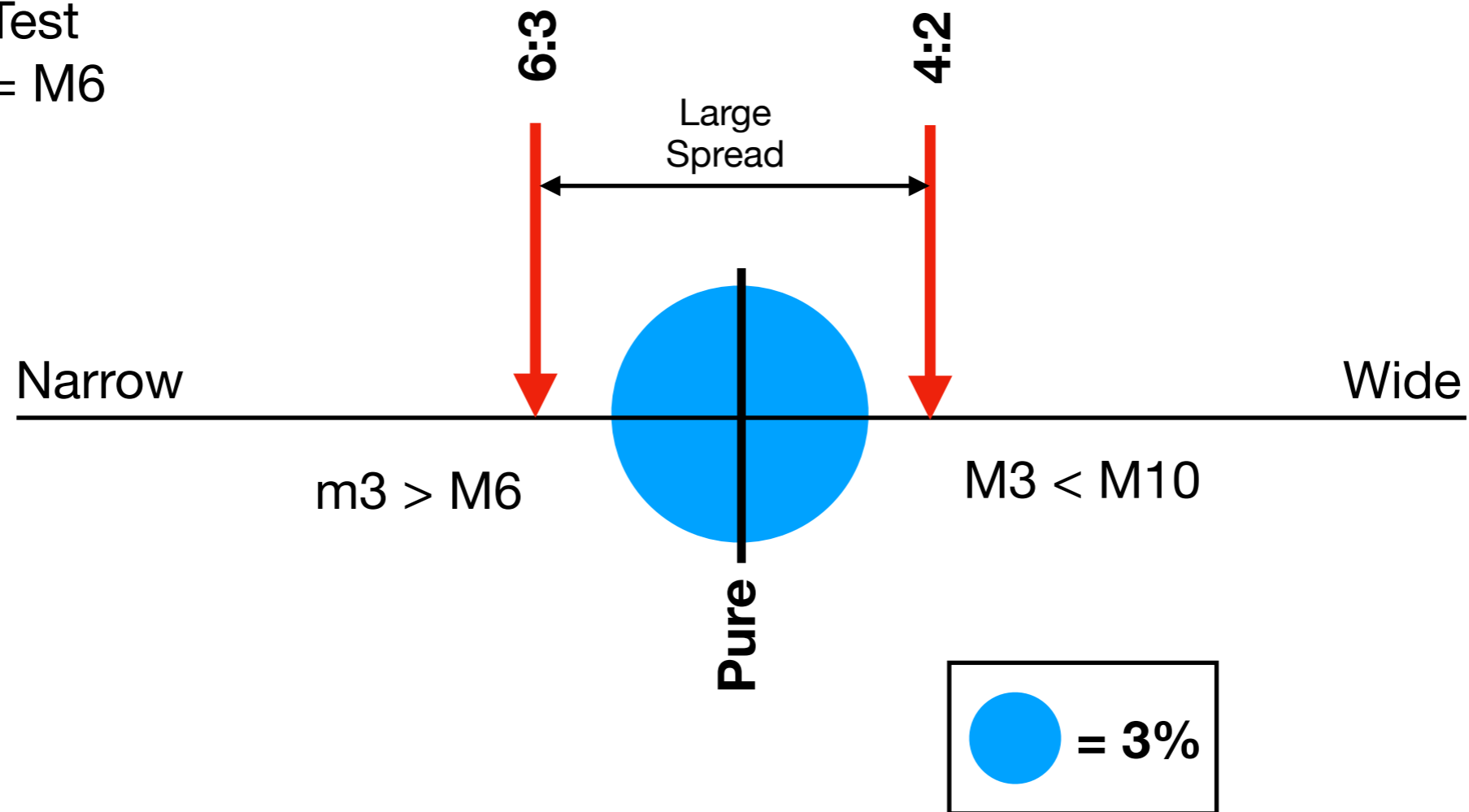


Octaves

4:2 test
M3 = M10

6:3 Test
m3 = M6

Another piano. Tuneable as wide 4:2/ narrow 6:3, but ends up very wide 4:2/very wide 6:3. Does not sound good.

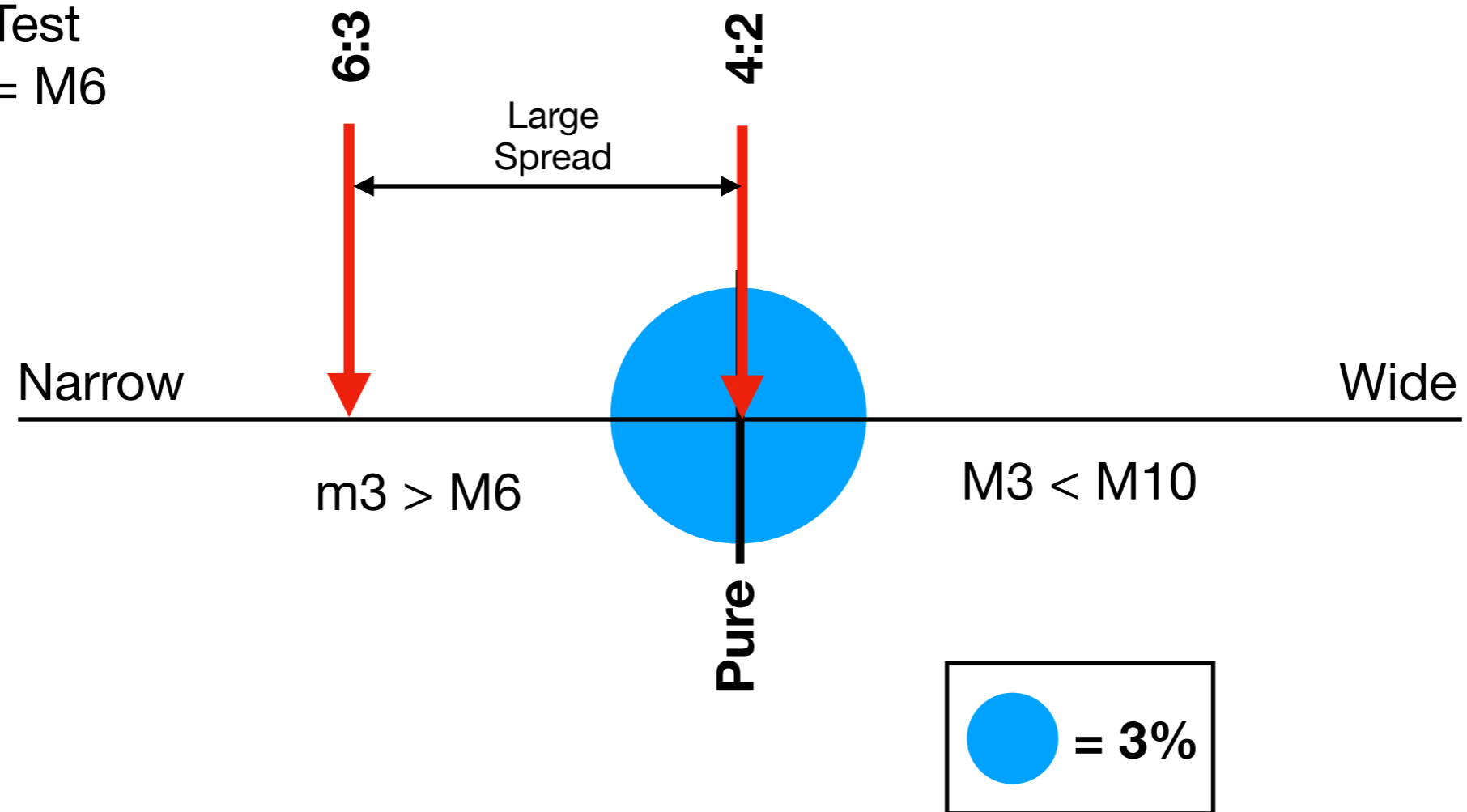


Octaves

One option: tune as pure 4:2, very narrow 6:3.
Seems to sound better.

4:2 test
 $M3 = M10$

6:3 Test
 $m3 = M6$

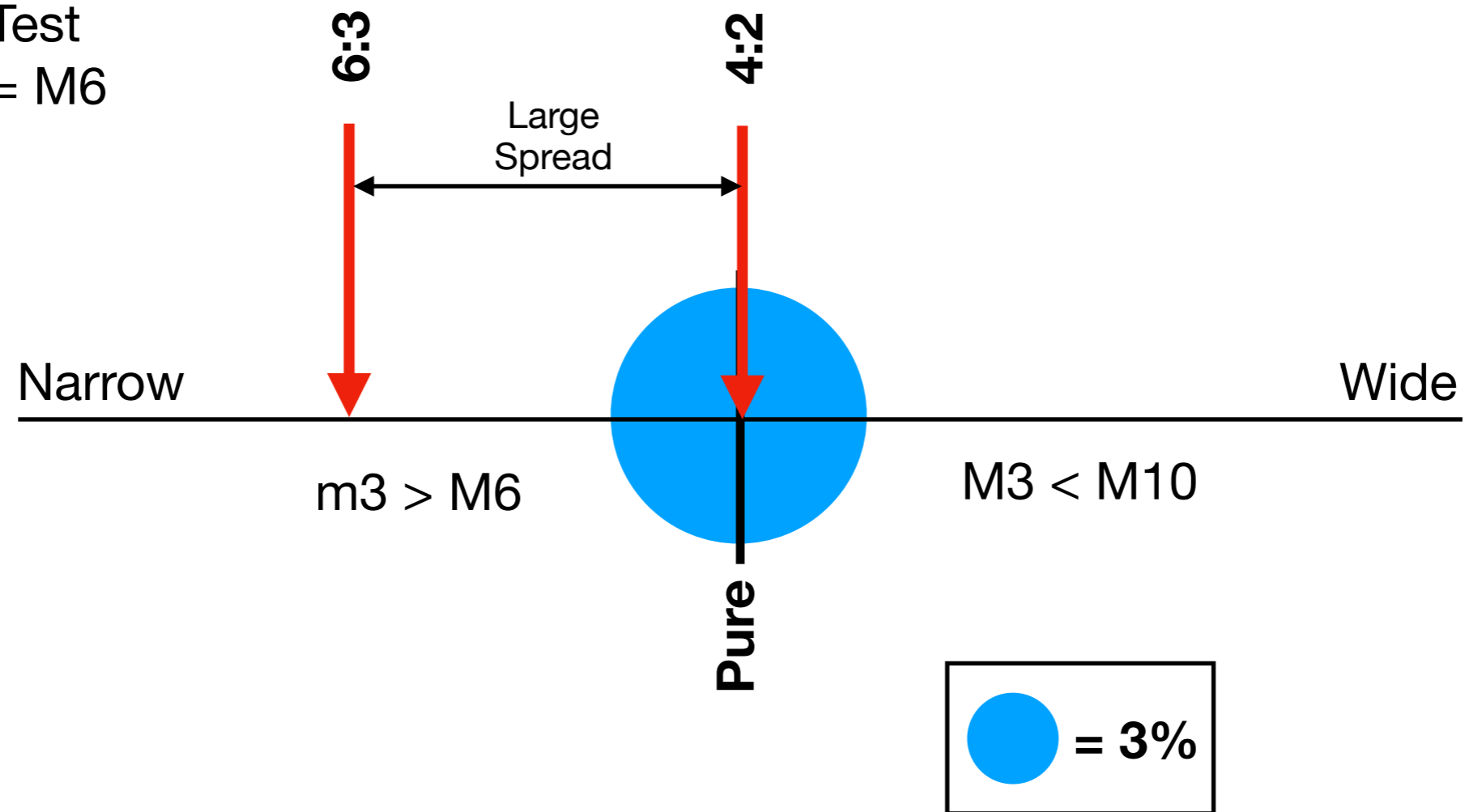


Octaves

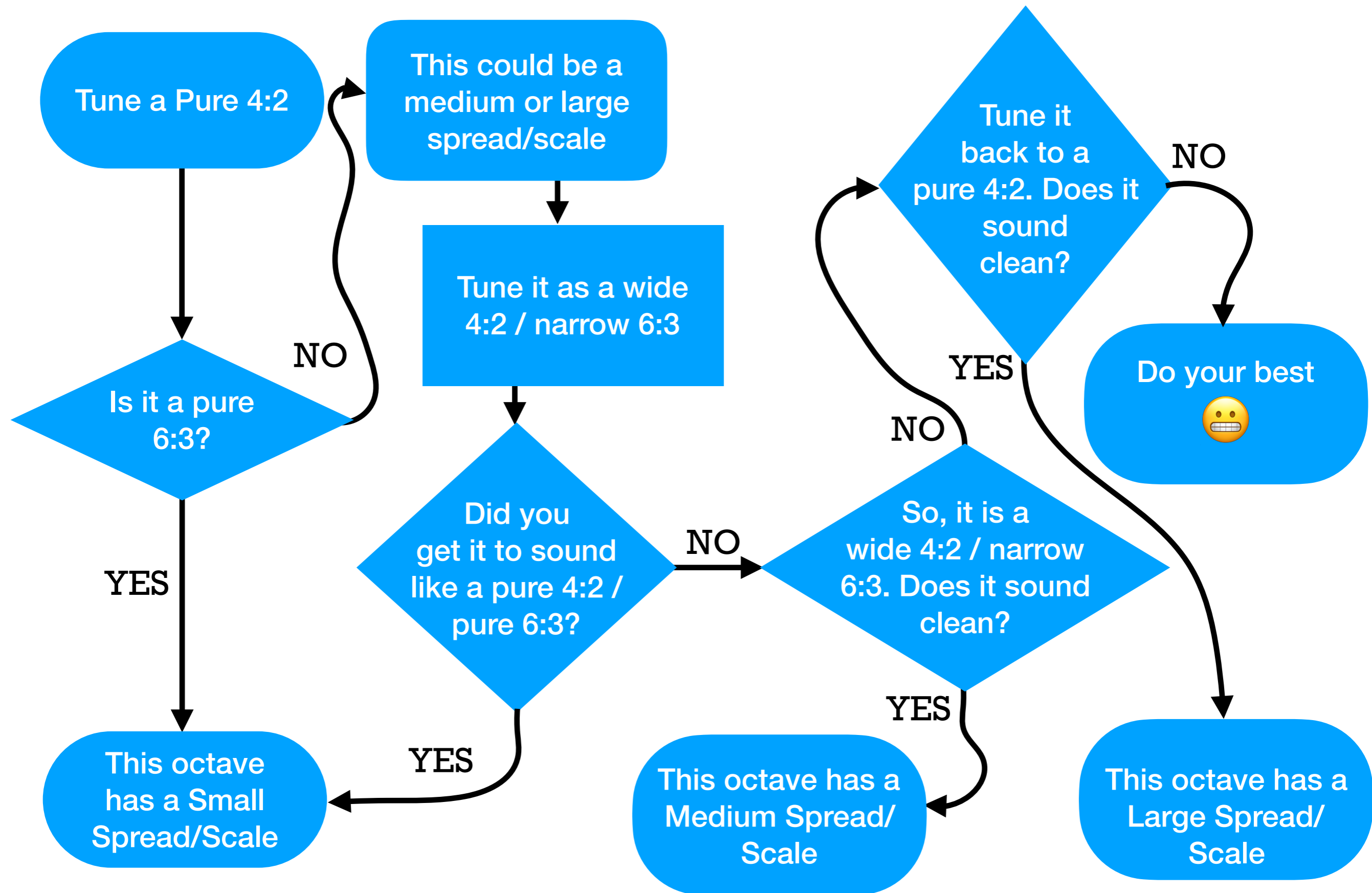
4:2 test
M3 = M10

6:3 Test
m3 = M6

Very Narrow 6:3



Procedure for tuning A3A4 and F3F4



Procedure for tuning A3A4 and F3F4

This octave
has a Small
Spread/Scale

Pure 6:3

This octave has a
Medium Spread/
Scale

Narrow 6:3

This octave has a
Large Spread/
Scale

Very Narrow 6:3



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