

# BIT LOUD

SO HE HAS INVENTED A SYSTEM OF USING BITS OF WOOD AND A TEABOY TO MEASURE LOUDNESS...

HARRY IS TRYING TO DETERMINE HOW LOUD THE BAND'S ARE PLAYING IN HIS REHEARSAL ROOMS - BUT I DON'T WANT TO INVEST IN A DECIBEL METER.

THAT COSTS MONEY.

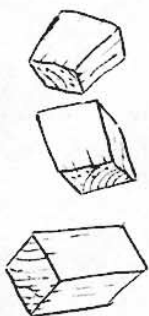
OKAY, TEABOY, IF THE BAND IS QUIET, PUT ONE BIT OF WOOD OUTSIDE THE DOOR...

IF THEY'RE QUITE LOUD, USE TWO BITS OF WOOD...

AND IF THEY'RE REALLY LOUD...

YEAR, YEAR. JUST GIMME THE WOOD

YOU WANT TEA?



QUIET.

HELLO DARKNESS MY OLD FRIEND.

ONE BIT.

REASONABLY LOUD.

TWO.

OOHH BABY!

REAL LOUD.

THREE.

I AM AN ANARKIST!

EVEN LOUDER...

DEATH DEATH!

RANT!

UH... FOUR

SOON...

MASSIVELY MUNGUSLY LOUD.

RAH!

SIXTEEN!

LATER...

HMM... SO MY ORIGINAL SYSTEM OF THREE BITS WASN'T ACCURATE ENOUGH TO MEASURE ALL THOSE DIFFERENT VOLUME LEVELS.

NEXT DAY...

YOU'LL BE PLEASED TO KNOW I'VE ORDERED A TRUCK LOAD OF BITS OF WOOD.

.... GREAT.

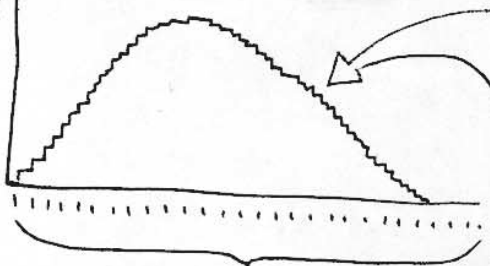
IT COST ME A SMALL FORTUNE!

YOU COULD'VE GOT A DECIBEL METER FOR A TENNER.

LOUDNESS (DYNAMIC RANGE) 16 BIT DEPTH

24 BIT CAN RECORD QUIET SOUNDS - A HIGHER RESOLUTION, A SMOOTHER SOUND.

16 BIT OFFERS 65,536 POINTS OF RESOLUTION



IT'S NOT EXACTLY SMOOTH, THOUGH, IS IT? DIGITISING SOUND REQUIRES ROUNDING UP OR DOWN OF MANY DIFFERENT POINTS, RESULTING IN ERRORS. THE ROUNDING UP OR DOWN IS CALLED QUANTISATION, AND THE ERRORS ARE KNOWN AS... QUANTISATION ERRORS. THESE ERRORS WILL DISTORT THE SOUNDWAVES SHAPE.