

2.2 Sequences

The puzzle consists of 10 video clips paired with 10 audio clips and 10 numbers. If you look at the sequence of movie clips, they are from the following movies:

- One Flew Over the Cuckoo's Nest
- The Two Towers
- The Three Musketeers
- The Fifth Element
- The Sixth Sense
- Se7en
- The Ten Commandments
- Ocean's 11
- Apollo 13
- Saturday the 14th

Note that each of these titles contains a number, and these numbers are the first ten squarefree numbers (you can figure this out by using the Online Encyclopedia of Integer Sequences, for example).

Next, the music clips are from the following songs:

- Another One Bites the Dust
- Two to Tango
- 4 Minutes
- Beethovens 6th Symphony
- Eight Days a Week
- The 12 Days of Christmas
- Sweet Little 16
- Shes Only 18
- 24 Hours to Tulsa
- 30 Minutes

The numbers in these titles are the first ten numbers whose set of prime divisors are consecutive primes starting from 2.

Finally, the numbers in the video are 16,24,36,40,54,56,60,81,84,88; these are the first ten numbers which are the product of exactly four primes.

Now consider what numbers these three sequences might have in common. The only number that is a product of exactly four primes, whose prime divisors are consecutive starting from 2, and that is also squarefree, is $2 \times 3 \times 5 \times 7 = 210$, which is the answer to this puzzle.