

1. In the classic chick flick, “Thelma and Louise”, the pair of women deliberately drive their car off the edge of a cliff for some reason men will never understand. The cliff is about 100 m high and they are driving about 30 m/sec.

Thelma ending

<http://www.youtube.com/watch?v=4z88U915uq8>

1.  In bombing missions in WWII , bombs were released under the airplane and were shaped to minimize air resistance. If an airplane was moving 50 m/sec and was 1000. Meters high, how far ahead of the target should the bomb be dropped?
2. In medieval times, trebuchets were used to throw burning fireballs and rocks at an enemy. A good trebuchet can throw at about 50 meters/sec. How far away would the weapon have to be from the enemy to be effective?

Piano man

<https://www.youtube.com/watch?v=-wVADKznOhY>

trebuchet pumpkin

<https://www.youtube.com/watch?v=nomeW2FDDtM>



1. Modern farmers may amuse themselves in a heavy harvest season with novelty devices for vegetables such as this pumpkin cannon. Which can fire the pumpkins at over 200 m/sec. If the cannon fires at 30 degrees, how far will the pumpkin go?

trebuchet pumpkin

<https://www.youtube.com/watch?v=nomeW2FDDtM>