Rate of evolution of the horse

Examine the replicas of the feet of the fossil horses. How do they differ from a modern horse.

The earliest horse Hyptherium (formerly called Eohippus) lived 58 million years ago and was about 150mm high, the same size as a domestic cat. A modern horse is 1500mm high.

The change in height over 58mm years is?

The increase in height per million years is?

For a modern domestic horse each generation is about 10 years. On that basis:
what is the number of generations since the first horse?

What is the increase in height per generation?

Evaluate your results.

Teacher's Section

Replicas of the feet of fossil horses can be obtained from the Open University Learning Resources.
The length of a generation for a modern domestic horse is likely to be different from a wild horse e.g. a zebra and is even more likely to be significantly different from that for the small early horses. From looking at many other fossil horses from a variety of stratigraphic ages we know that the rate of change in height was not constant.