

The Paradox of the Seventeen Camels

This conundrum is of considerable antiquity – indeed it has been ascribed to the great Persian mathematician Muhammad ibn Musa al-Khwarizmi (ca 780-850 AD) – but there doesn't seem to be a canonical version of it. I prefer a straightforward account, as I've set out below, in which the baffling last Will and Testament of their deceased father causes consternation to his well-meaning three sons, as to how their father's herd of 17 camels is to be divided between them.

Their late father, let's call him Abdullah, had directed that one half of the herd should be inherited by his eldest son, one third should be inherited by his middle son, and one ninth should be inherited by his youngest son. How could those proportions be interpreted with 17 camels? It would have worked well with 18 camels, but maybe one of the herd had just pegged-out, or maybe the old man was just having some gentle fun at their expense.

To resolve their perplexity the sons turned to their father's oldest and wisest friend, let's call him Muhammad, who offered to donate them one of the finest camels from his own herd. And now everything worked wonderfully well – the eldest son chose 9 camels, the middle son chose 6 camels and the youngest son happily accepted 2 camels.

But one camel yet remained – Muhammad's camel, which was gladly returned to him !

How could all this be ?