

$$1 + 3 + 3 + 1 +$$

Quiz 6

① ~~1631~~, 1638, Galileo
~~1634~~

2 Descartes in Geometrie (1637)

② (Newton discover 1665, published later 1704-30)
heibniz discover 1673-76, published first

④ $x^3 + 6x - 7 = 0$

$$x = u + v$$

$$(u+v)^3 + 6(u+v) - 7$$

$$u^3 + 3u^2v + 3uv^2 + v^3 + 6u + 6v - 7 = 0$$

Plug in $u=1, v=0$

$$u^3 + v^3 + 3u(u+1) + 3v(v+1) = 7$$

$$3v(v+1) = 0, v^3 + u^3 = 1, 3u(u+1) = 6$$

root $\Rightarrow u=1, v=0$ or vice versa

$$x=1$$