$r = 3$ cm

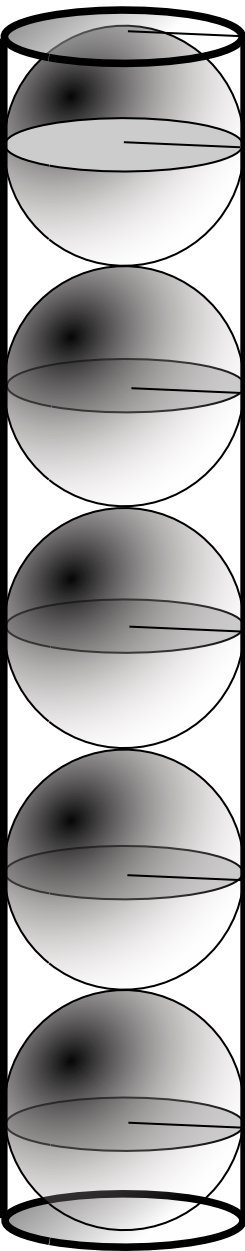$h = 30$ cm