NMIT1 P06 Aufg2 - ungerpet

V[Kugelsegment] = ((n^2 * Pi)/3)(3r - h); h: Höhe, r: Radius
V=(n^2 * Pi/3)(15-h) = 471
h^2 * Pi * (15-h) = 1413
f(x) = n^2 * Pi * (15-h) - 1413
f'(x) = -3 * Pi * x (x -10)

Newtonverfahren:
x[n+1] = xn - (f(xn)-f'(xn))

n	xn
0	9.0
1	7.6582
2	8.0149
3	8.0371
4	8.0372

=> h = 8.0372 m