

$$f(x) = 6x + 1, \quad z = f(f(x))$$

$$a) \quad f(f(x)) = 34;$$

$$\begin{aligned} f(f(x)) &= f(6x+1) = 6(6x+1) + 1 = \\ &= 36x + 7 \end{aligned}$$

$$36x + 7 = 34 \Leftrightarrow 36x = 27 \Leftrightarrow x = \frac{27}{36} = \frac{3}{4}$$

$$b) \quad f(f(z)) = f\left(f\left(\underbrace{f(f(x))}_z\right)\right) =$$

$$= f\left(f\left(\underbrace{36x+7}_{\text{från a)}}\right)\right) =$$

$$\left( \underbrace{\hspace{10em}}_{\text{från a)}} \right. \\ \left. 6 \cdot (36x+7) + 1 = 216x + 43 \right)$$

$$= f(216x+43) = 6 \cdot (216x+43) + 1$$

$$= 1296x + 259$$