A l'aide des propriétés des exposants, transformez chacune des fonctions exponentielles suivantes sous la forme $f(x) = a(c)^x + k$.

a) $f(x) = \frac{1}{3}\left(\frac{1}{2}\right)^{x-3} - 6$	
b) $f(x) = \frac{2}{5} - 20(3)^{2x+3}$	
c) $f(x) = -\frac{5}{4}\left(\frac{8}{5}\right)^{3x-1} + 2$	
d) $f(x) = 2(2)^{x+3} - 4$	
e) $f(x) = \frac{1}{16}\left(\frac{1}{4}\right)^{x+1} + \frac{1}{2}$	
f) $f(x) = \frac{5}{6}\left(\frac{6}{5}\right)^{3x+5} - 3$	

A l'aide des propriétés des exposants, transformez chacune des fonctions exponentielles suivantes sous la forme $f(x) = a(c)^x + k$.

a) $f(x) = \frac{1}{3}\left(\frac{1}{2}\right)^{x-3} - 6$	$f(x) = \frac{1}{3} \cdot \left(\frac{1}{2}\right)^x \cdot \left(\frac{1}{2}\right)^{-3} - 6$ $f(x) = \frac{1}{3} \cdot 8 \left(\frac{1}{2}\right)^x - 6$ $\boxed{f(x) = \frac{8}{3} \cdot \left(\frac{1}{2}\right)^x - 6}$
b) $f(x) = \frac{2}{5} - 20(3)^{2x+3}$	$f(x) = -20 \cdot 3^{2(x+\frac{3}{2})} + \frac{2}{5}$ $f(x) = -20 \cdot 9^{x+\frac{3}{2}} + \frac{2}{5}$ $f(x) = -20 \cdot 9^x \cdot 9^{\frac{3}{2}} + \frac{2}{5}$ $f(x) = -20 \cdot 27 \cdot 9^x + \frac{2}{5}$ $\boxed{f(x) = -540 \cdot 9^x + \frac{2}{5}}$
c) $f(x) = -\frac{5}{4}\left(\frac{8}{5}\right)^{3x-1} + 2$	$f(x) = -\frac{5}{4}\left(\frac{8}{5}\right)^{3(x-\frac{1}{3})} + 2$ $f(x) = -\frac{5}{4} \cdot \left(\frac{512}{125}\right)^{x-\frac{1}{3}} + 2$ $f(x) = \frac{-5}{4} \cdot \left(\frac{512}{125}\right)^x \cdot \left(\frac{512}{125}\right)^{\frac{-1}{3}} + 2$ $f(x) = \frac{-5}{4} \cdot \frac{5}{8} \cdot \left(\frac{512}{125}\right)^x + 2$ $\boxed{f(x) = \frac{-25}{32} \left(\frac{512}{125}\right)^x + 2}$
d) $f(x) = 2(2)^{x+3} - 4$	$f(x) = 2 \cdot 2^x \cdot 2^3 - 4$ $f(x) = 2 \cdot 8 \cdot 2^x - 4$ $\boxed{f(x) = 16 \cdot 2^x - 4}$
e) $f(x) = \frac{1}{16}\left(\frac{1}{4}\right)^{x+1} + \frac{1}{2}$	$f(x) = \frac{1}{16} \cdot \left(\frac{1}{4}\right)^x \cdot \frac{1}{4}^1 + \frac{1}{2}$ $\boxed{f(x) = \frac{1}{64} \cdot \left(\frac{1}{4}\right)^x + \frac{1}{2}}$
f) $f(x) = \frac{5}{6}\left(\frac{6}{5}\right)^{3x+5} - 3$	$f(x) = \frac{5}{6}\left(\frac{6}{5}\right)^{3(x+\frac{5}{3})} - 3$ $f(x) = \frac{5}{6}\left(\frac{216}{125}\right)^{x+\frac{5}{3}} - 3$ $f(x) = \frac{5}{6}\left(\frac{216}{125}\right)^x \cdot \left(\frac{216}{125}\right)^{\frac{5}{3}} - 3$

$f(x) = \frac{5}{6} \cdot \frac{7776}{3125} \left(\frac{216}{125}\right)^x - 3$

$f(x) = \frac{1296}{625} \cdot \left(\frac{216}{125}\right)^x - 3$