MCR3U
Chapter 4 – Post Holiday Break Review

EXPONENT LAWS

1. Evaluate without a calculator. Express answers as exact fractions:

(a) $-\left(\frac{8}{27}\right)^{-\frac{2}{3}}$

(b) $\frac{2^{-1}}{3^{-1}-3^{-2}}$

2. Simplify. Express answers using only positive exponents:

(a) $6x^{-3}\left(3x^{-1}y\right)^{2}$

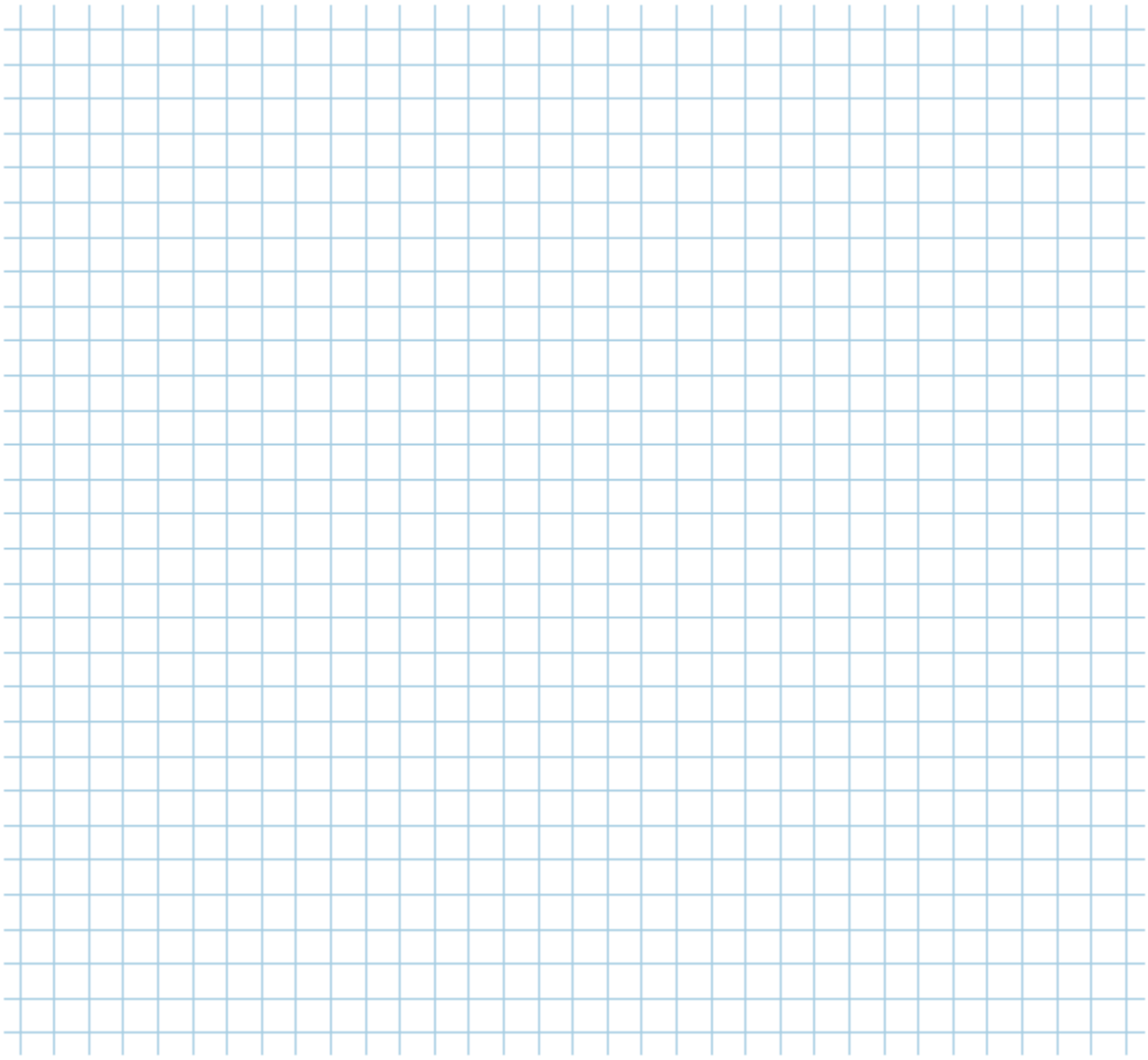
(b) $\dfrac{\sqrt{x^{6}\left(y^{4}\right)^{-2}}}{x^{-2}y^{3}}$

3. $f(x) = 6(4)^{2(x-3)} - 1$

State the Transformations

Apply the Transformations

Graph the base case and the transformed function



$b)\ h(x) = -(\frac{1}{3})^{\frac{1}{4}x+40} + 8$

State the Transformations (Do you need to factor?)

Apply the Transformations

Graph the Base Case and the Transformed Function