

**Exam Review Quiz – Exponential Functions**

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1. **Evaluate/simplify** using exponent rules. Express your answer as a fraction or as an expression with a single positive exponent.

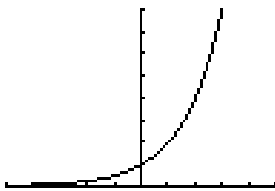
a)  $\left(\frac{1}{2}\right)^{-3}$

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

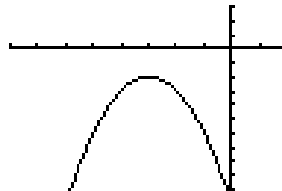
c)  $3^0 + 4^{-2}$

2. Identify whether each of the following relations is linear, quadratic or exponential.

a)



b)

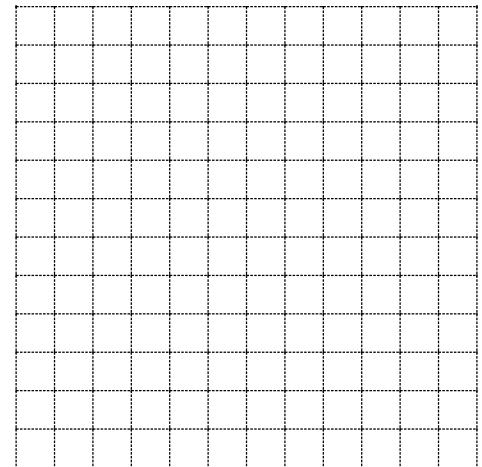


c)

<b>x</b>	<b>y</b>
-2	7
-1	3
0	-1
1	-5

3. Draw the graph of  $y = 3(2)^x$ . You can complete the table of values to help you if you wish.

<i>x</i>	<i>y</i>
-2	
-1	
0	
1	
2	



4. There are 800 caribou in a provincial park. The caribou population has been growing at an annual rate of 2%.

a) Write an equation to estimate *y*, the number of caribou in the park *x* years from now.

b) Use your equation to determine the population 10 years from now.