Name: _____ Date: _____ IB Math A&A SL

Lesson 1.6 -Transformations of Different Functions

I.   Six Functions to be Familiar With

1. Graph each function below. (Write out a table of values if you need)

Quadratic $f(x) = x^2$	**Cubic** $f(x) = x^3$	**Absolute Value** $f(x) = |x|$

Square Root $f(x) = \sqrt{x}$	**Reciprocal** $f(x) = \frac{1}{x}$	**Step/Floor Function** $f(x) = [x]$

Notes on Transformations: *Translation Vectors*
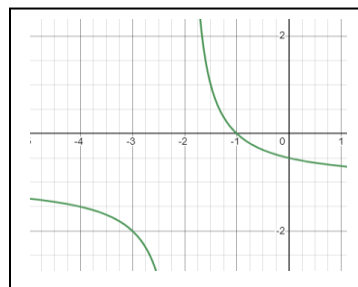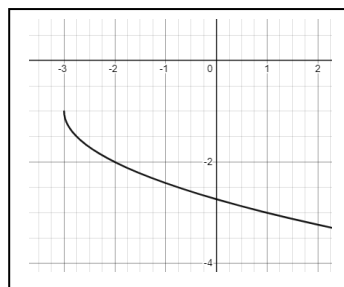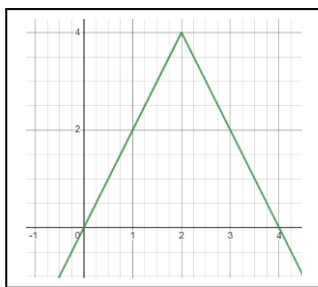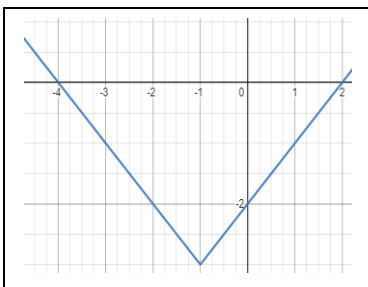
A general function with transformations:

II.   Practice with Transformations

2. Find the equations for each of the functions below.
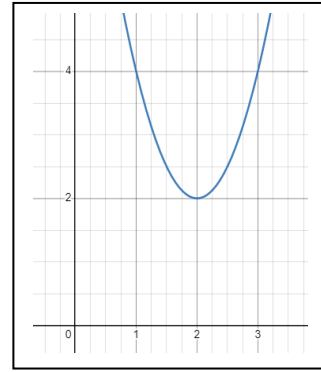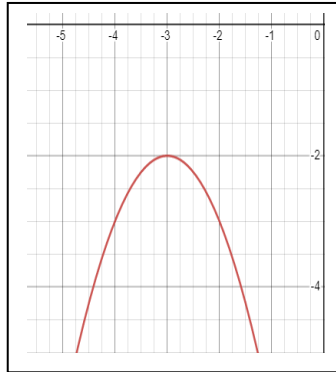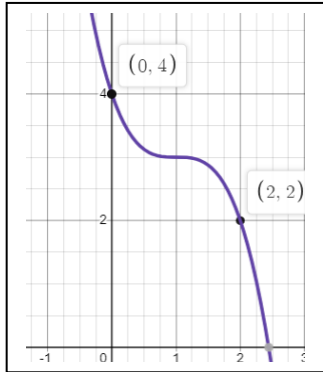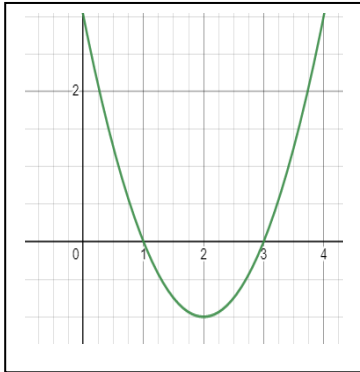
3. Match each of the functions below with the correct equations.
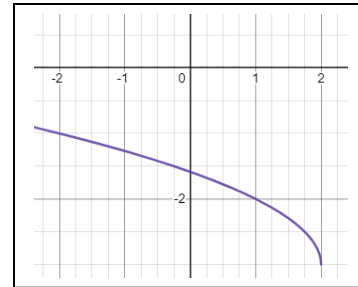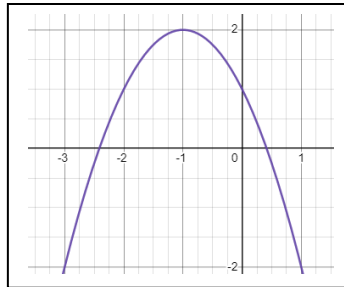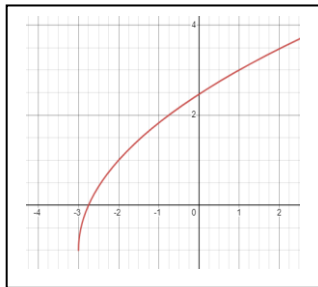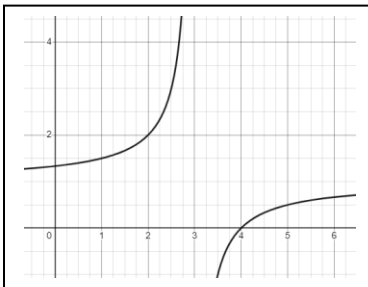
A. $f(x) = 4 - 2|x - 2|$

B. $f(x) = \sqrt{-x + 2} - 3$

C. $f(x) = -\dfrac{1}{x-3} + 1$

D. $f(x) = 2\sqrt{x + 3} - 1$

E. $f(x) = |x + 1| - 3$

F. $f(x) = \dfrac{1}{x+2} - 1$

G. $f(x) = 2 - (x + 1)^2$

H. $f(x) = -\sqrt{x + 3} - 1$