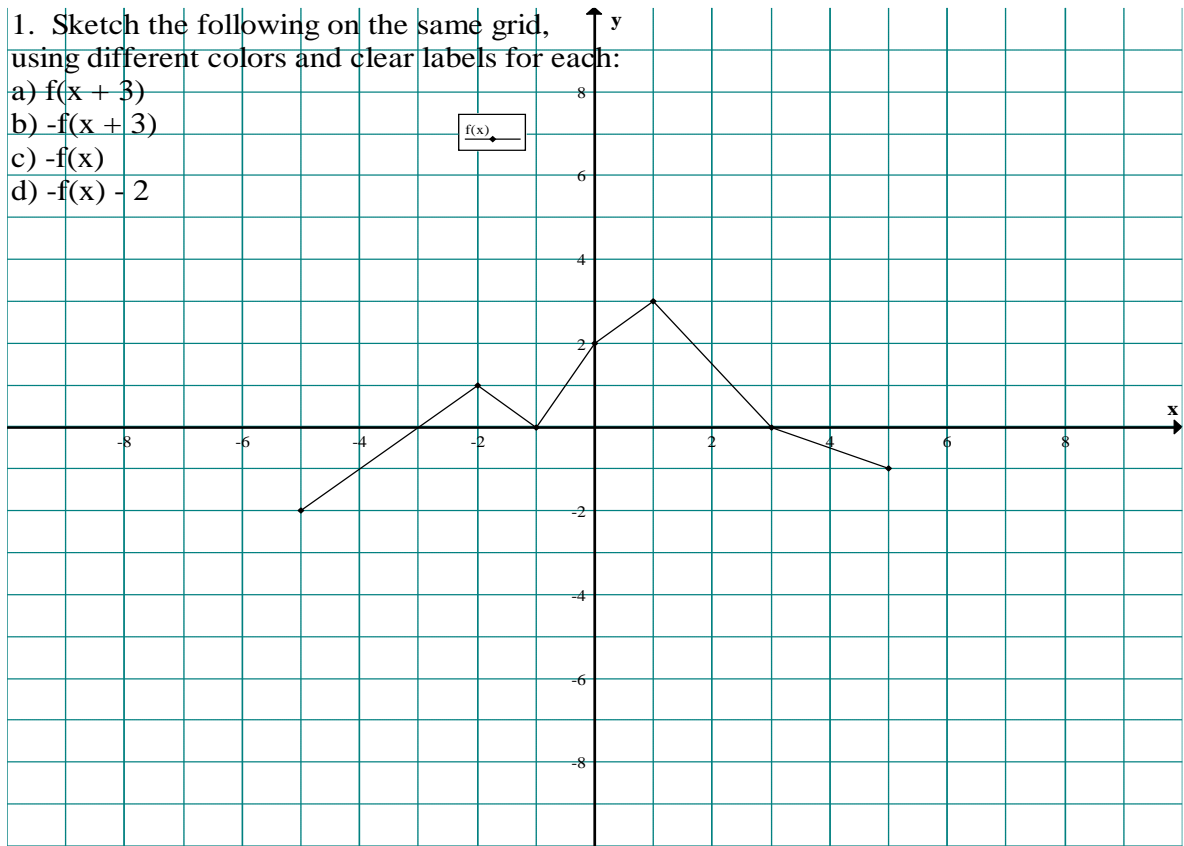


**IB Math SL 1 Transformations - Shifts and Reflections Worksheet** Name \_\_\_\_\_

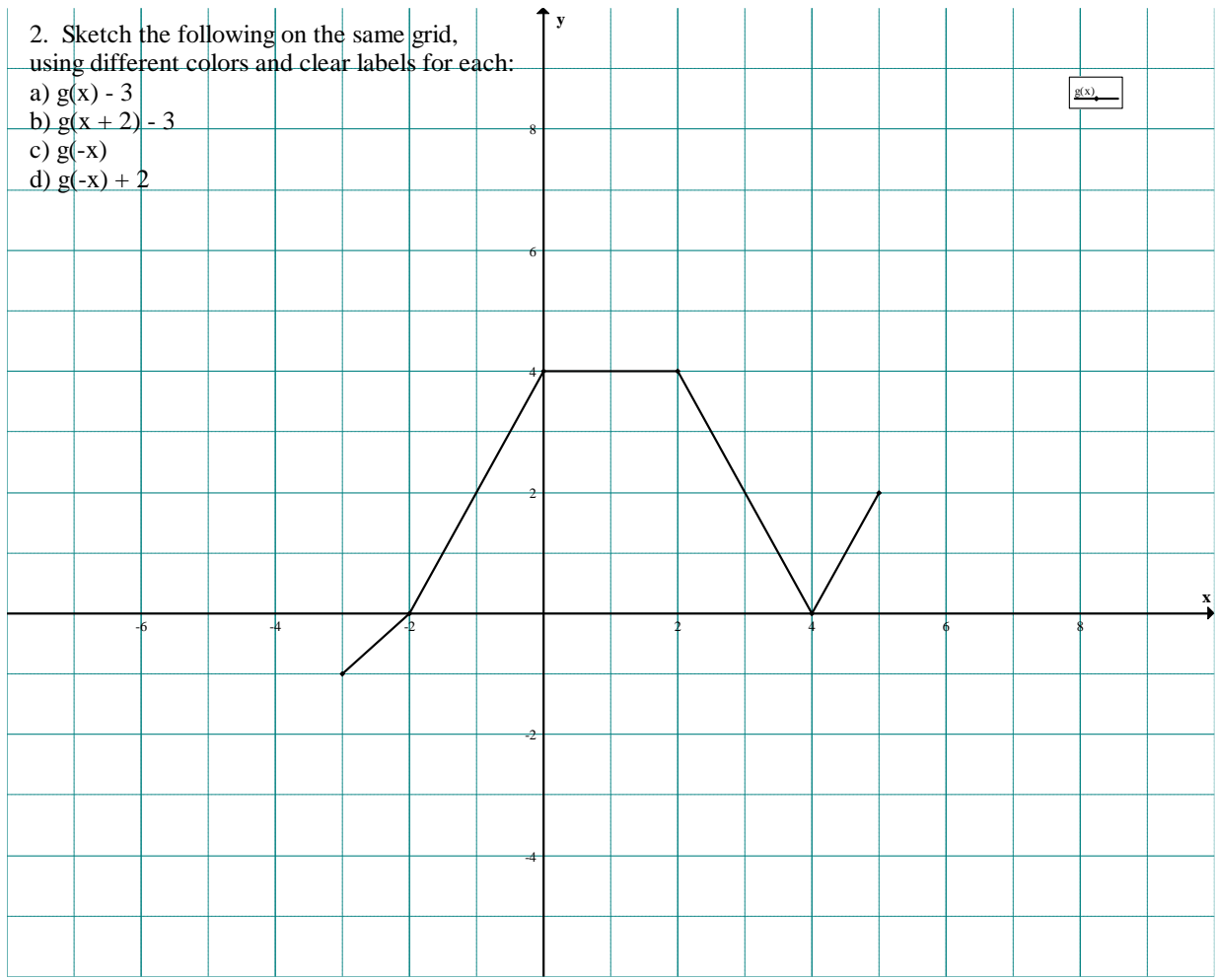
1. Sketch the following on the same grid, using different colors and clear labels for each:

- a)  $f(x + 3)$
- b)  $-f(x + 3)$
- c)  $-f(x)$
- d)  $-f(x) - 2$



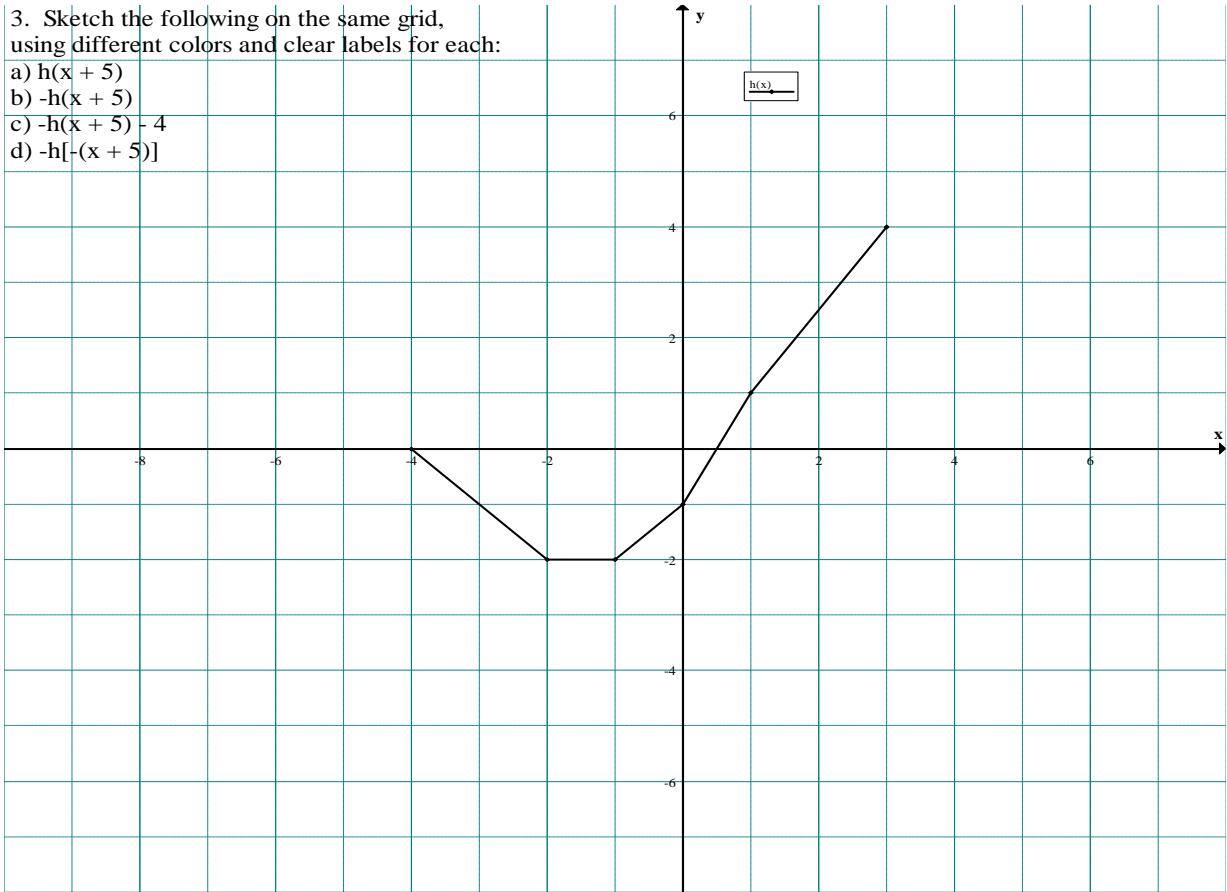
2. Sketch the following on the same grid, using different colors and clear labels for each:

- a)  $g(x) - 3$
- b)  $g(x + 2) - 3$
- c)  $g(-x)$
- d)  $g(-x) + 2$



3. Sketch the following on the same grid, using different colors and clear labels for each:

- a)  $h(x + 5)$
- b)  $-h(x + 5)$
- c)  $-h(x + 5) - 4$
- d)  $-h[-(x + 5)]$



3. Sketch  $-k[-(x - 3)] + 1$ .  
It is recommended that you do it in steps, by looking at the order of operations.

