Stretching and Shifting

Use the g(x) given in the first table to complete the second table.

| x | g(x) | |
|----|------|--|
| -5 | 1 | |
| -4 | 1 | |
| -3 | 1 | |
| -2 | 2 | |
| -1 | 1 | |
| 0 | 1 | |
| 1 | 1 | |
| 2 | 2 | |
| 3 | 1 | |
| 4 | 1 | |
| 5 | 1 | |

| x | 2g(x) | g(x+2) | g(x-2) | g(2x) | g(x/2) |
|----|-------|--------|--------|-------|--------|
| -5 | | | | | |
| -4 | | | | | |
| -3 | | | | | |
| -2 | | | | | |
| -1 | | | | | |
| 0 | | | | | |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |

Using the graph paper provided and using the table of numbers you just made, sketch the following functions.

- 1. g(x) and 2g(x).
- 2. g(x), g(x + 2), and g(x 2)
- 3. g(x), g(2x), and g(x/2)

Plot the different functions in different colors. Bright, bold colors are preferred.





