

(1) Let $f(x) = x - 1$ and $g(x) = x^2 + x + 1$. Write down formulas for

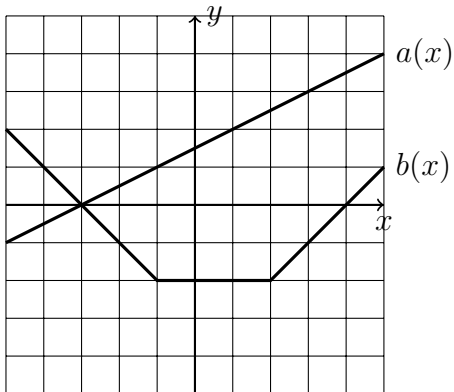
(a) $f(x) + g(x)$

(b) $f(x)/g(x)$

(c) $f(g(x))$

(d) $g(f(x))$

(2) The graphs of two functions $a(x)$ and $b(x)$ are shown below. Find:



(a) $a(3)$

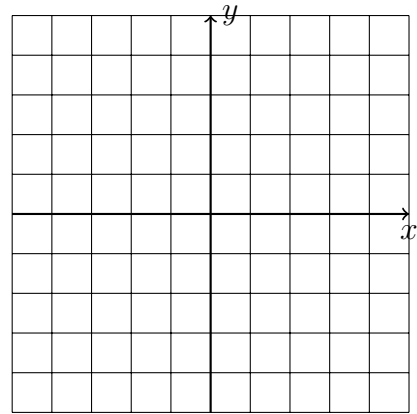
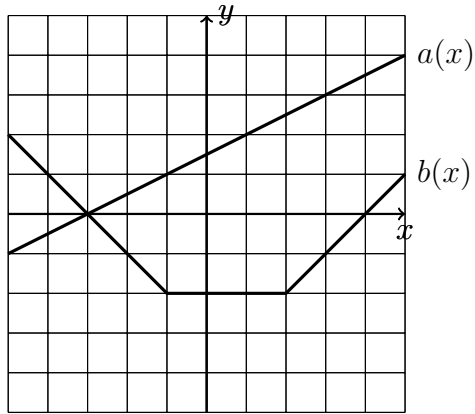
(b) $a(-1) - b(-1)$

(c) $a(b(0))$

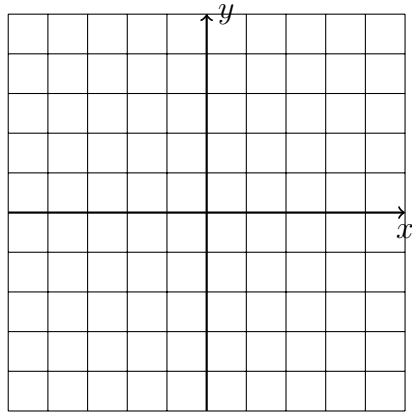
(d) $b(a(3))$

(e) $b(b(a(1)))$

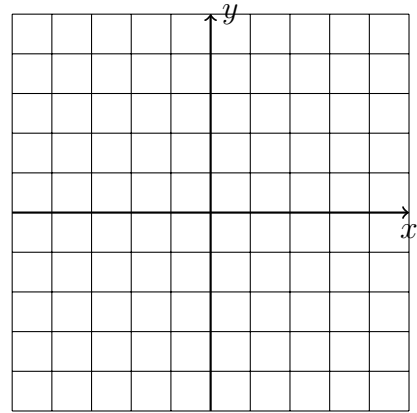
(3) For the same two functions a and b , draw graphs of the following functions.



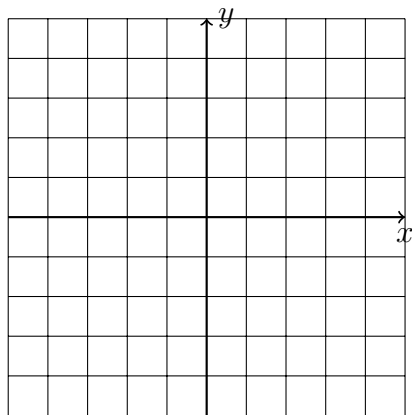
$$a(x) + b(x)$$



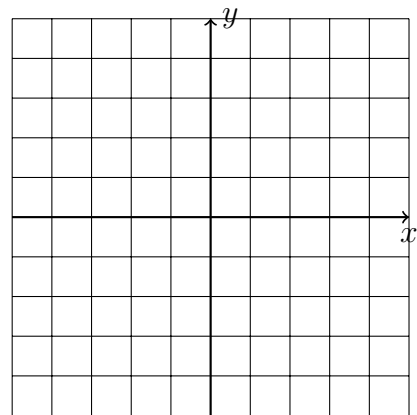
$$a(x) - b(x)$$



$$b(x)/a(x)$$



$$a(x)b(x)$$



$$a(b(x))$$