

Individual Test 6.6 and 6.7

Given the functions $f(x) = x^2 - 4$ and $g(x) = x + 2$. Perform the indicated operations. Make sure you simplify your final answers and **write them in standard form.**

1. $(f + g)(x)$

2. $(g - f)(x)$.

3. $(f \cdot g)(x)$.

1. _____

2. _____

3. _____

4. $(g \cdot g)(x)$

5. $\frac{f}{g}(x)$.

6. $g \circ f(x)$

4. _____

5. _____

6. _____

7. $f(g(x))$

8. $g(f(-1))$

9. $f(g(1))$

7. _____

8. _____

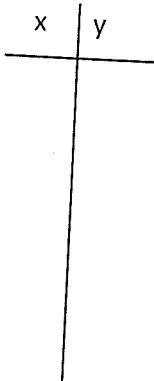
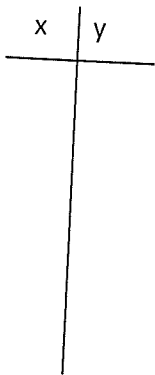
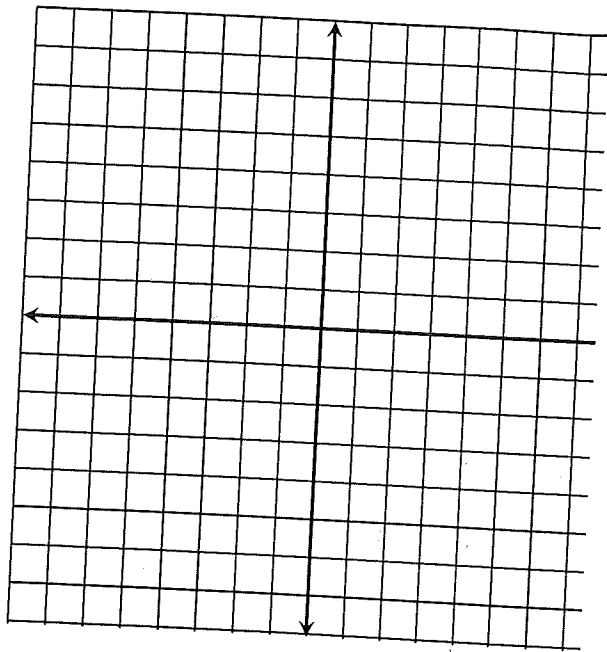
9. _____

10. $5(g(3)) + f(3)$

10. _____

13. $f(x) = \sqrt{x+4}$

Inverse relation:



$$f(x) = \left\{ \begin{array}{l} \text{domain} = \\ \text{range} = \end{array} \right\}$$

$$f^{-1}(x) = \left\{ \begin{array}{l} \text{domain} = \\ \text{range} = \end{array} \right\}$$

