COMPOSITE AND INVERSE FUNCTIONS

Solve these.

1. Given $f(x) = x^2 + 2$ and $g(x) = x + 14$

   Find the values of a such that $f(a) = g(a)$

2. The functions $f(x)$ and $g(x)$ are given by the following:

$$f(x) = 8 - 3x$$
$$g(x) = 4x$$

   (a) Calculate the value of $gf(3)$

   (b) Solve the equation $gf(x) = 80$

3. $f(x) = \dfrac{3x}{5} + 1$

   Find $f^{-1}(x)$

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4. Given $f(x) = x^2 + 3x - 5$

Express $f(2x - 1)$ in the form $ax^2 + bx + c$

5. The function f is such that $f(x) = kx + 3$

The function g is such that $g(x) = 2x - 4$

Given that $gf(2) = 34$

work out the value of k

6. For all values of x,

$$f(x) = x^2 + 4$$
$$g(x) = x - 9$$

Solve $fg(x) = gf(x)$

AcocadoMY
-It's a place to ace-

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