Find the inverse of each of the following functions if it exists.

1) \( f(x) = \frac{1}{2}x + 3 \)  
2) \( f(x) = 4x - 5 \)  
3) \( f(x) = 4^{x-2} \)  

4) \( f(x) = 2^{x-3} + 1 \)  
5) \( f(x) = \sqrt[3]{3x - 2} \)  
6) \( f(x) = 4(x+1)^2 - 3 \)  

7) \( f(x) = \log_6 x \)  
8) \( f(x) = \ln(x - 2) \)  
9) \( f(x) = 2\log_4 x - 5 \)  

10) \( f(x) = -\sqrt{x - 4} + 6 \)  
11) \( f(x) = (x + 3)^3 - 2 \)  
12) \( f(x) = 3^{x-20} + 1 \)
Below are six functions denoted by \( f(x) \) and the graphs of their inverses. Match the graph with the appropriate inverse function below.

13) \( f(x) = \log_2(x - 4) + 3 \)  

14) \( f(x) = \{(0, -4), (2, 0), (4, 4)\} \)  

15) \( f(x) = -\log_2 x + 2 \)  

16) \( f(x) = (x - 3)^2 - 2, \ x \geq 3 \)  

17) \( f(x) = (x + 3)^3 - 4 \)  

18) \( f(x) = \frac{1}{4} x + 1 \)