## Exercise 4

Mailbox \_\_\_\_

Solve:

1. 
$$\ln 3.4 =$$

$$2. e^{4.2} =$$

3. 
$$\ln(e^{10.7}) =$$

4. 
$$e^{(\ln 10.7)} =$$

5. 
$$ln(4^3) =$$

6. 
$$ln(21 \times 4) =$$

7. 
$$\ln(\frac{3}{4}) =$$

Graph:

8. 
$$y = 2 + 2e^{2x}$$

9. 
$$y = 3\ln(x+5)$$

Solve the following equations and check your solutions:

10. 
$$\ln(x+5) = 2$$

11. 
$$e^{2x-3} + 5 = 10$$

## Exercise 4

12. 
$$\ln(1 + e^{-3x}) = 7$$

13. 
$$5 + exp(-2x) = \ln(3)$$

14. (Optional) Here is a table relating vaccination rates and disease-free rates for one year:

		Vaccinated	
		Yes	No
Disease-	Yes	77	13
Free	No	8	2

Estimate the odds ratio for the association between vaccination and disease-free rates and the 95% confidence interval for the odds ratio.