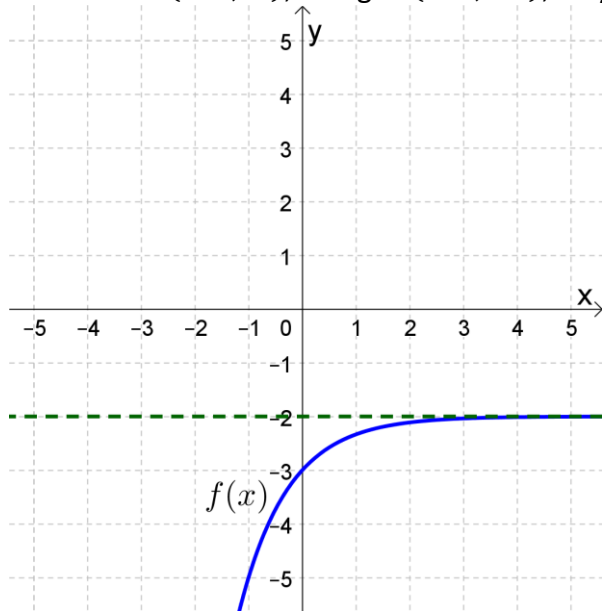
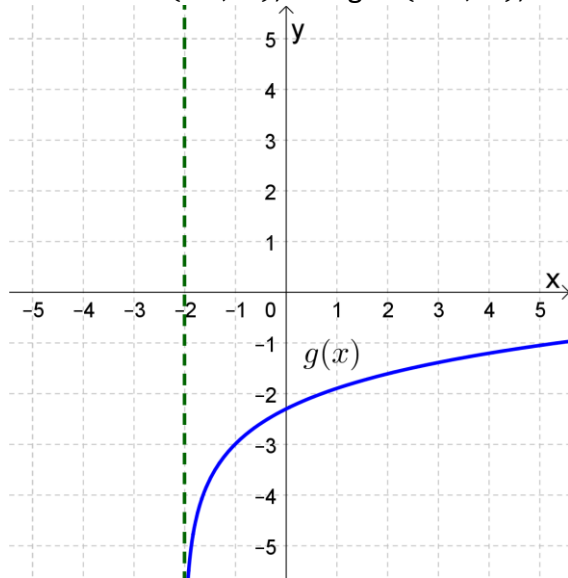


1. Domain: $(-\infty, \infty)$; Range: $(-\infty, -2)$; Asymptote: $y = -2$



2. Domain: $(-2, \infty)$; Range: $(-\infty, \infty)$; Asymptote: $x = -2$



3.

- a) $\frac{1}{2}$
- b) 7

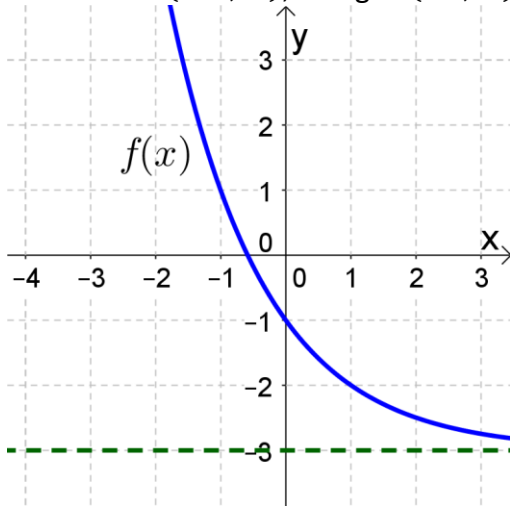
4.

- a) 8.574
- b) 148.413
- c) 1.672
- d) 2.708

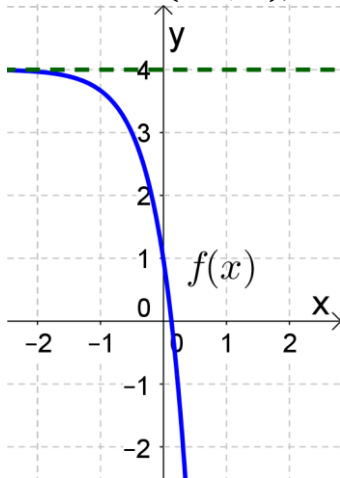
5. Domain: $[3, 5)$

Challenge: 3

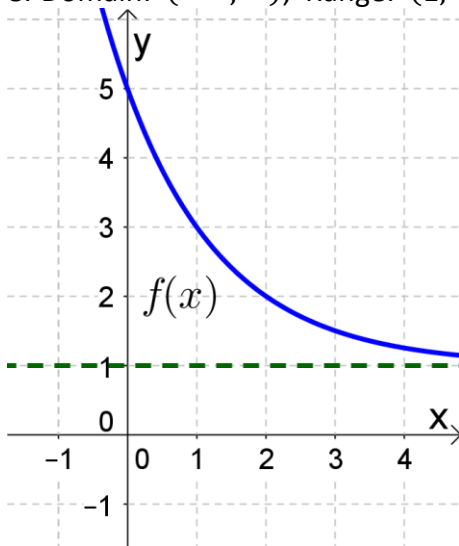
6. Domain: $(-\infty, \infty)$; Range: $(-3, \infty)$; Asymptote: $y = -3$



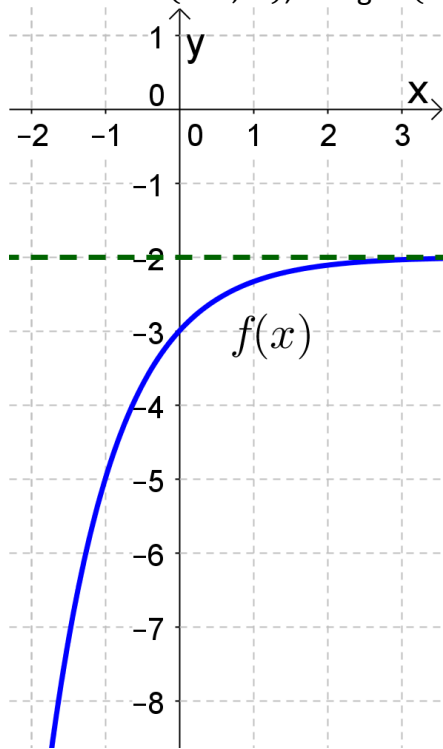
7. Domain: $(-\infty, \infty)$; Range: $(-\infty, 4)$; Asymptote: $y = 4$



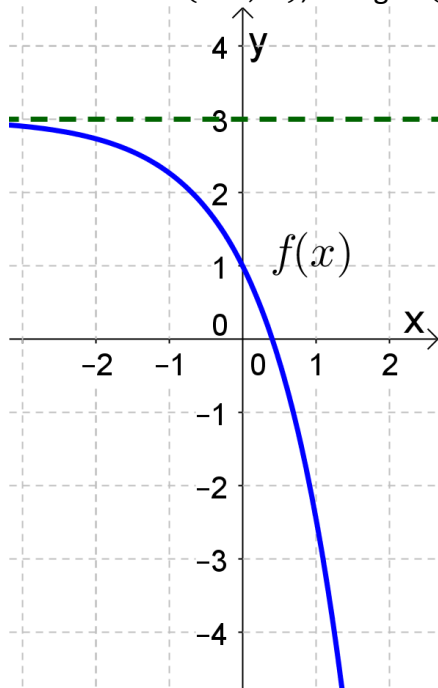
8. Domain: $(-\infty, \infty)$; Range: $(1, \infty)$; Asymptote: $y = 1$



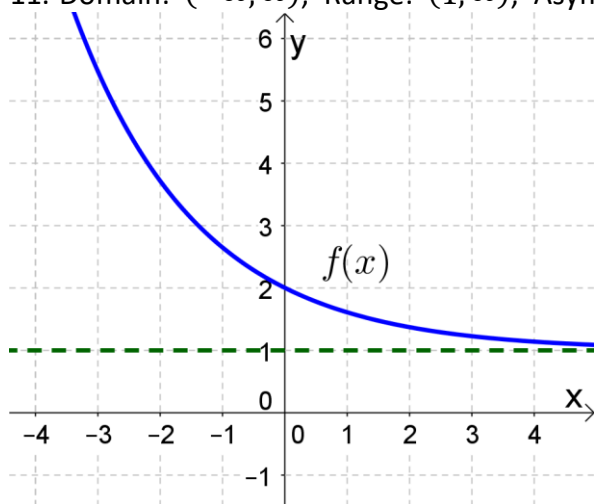
9. Domain: $(-\infty, \infty)$; Range: $(-\infty, -2)$; Asymptote: $y = -2$



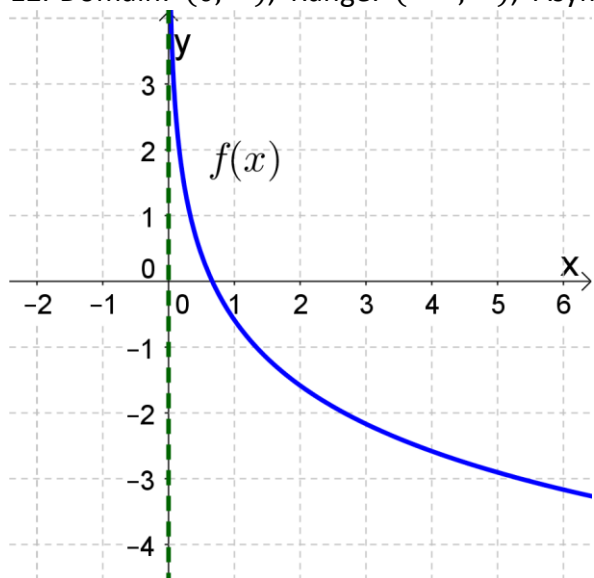
10. Domain: $(-\infty, \infty)$; Range: $(-\infty, 3)$; Asymptote: $y = 3$



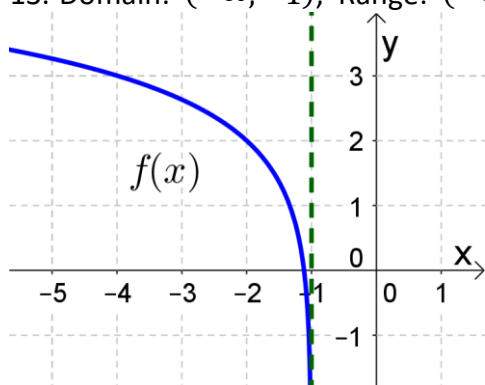
11. Domain: $(-\infty, \infty)$; Range: $(1, \infty)$; Asymptote: $y = 1$



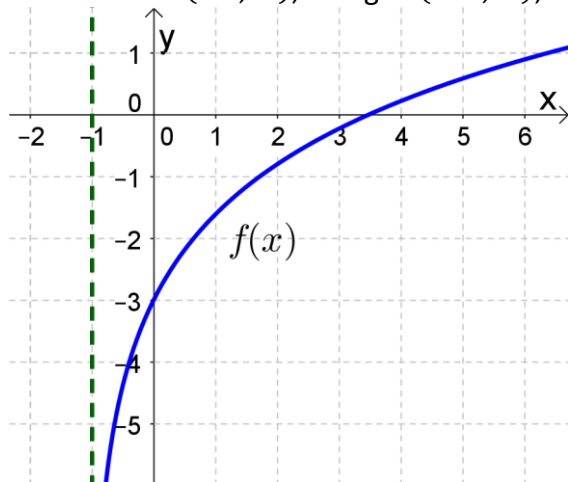
12. Domain: $(0, \infty)$; Range: $(-\infty, \infty)$; Asymptote: $x = 0$



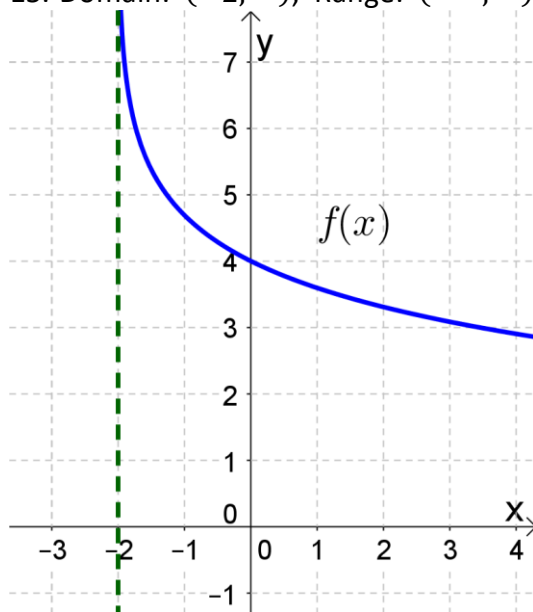
13. Domain: $(-\infty, -1)$; Range: $(-\infty, \infty)$; Asymptote: $x = -1$



14. Domain: $(-1, \infty)$; Range: $(-\infty, \infty)$; Asymptote: $x = -1$



15. Domain: $(-2, \infty)$; Range: $(-\infty, \infty)$; Asymptote: $x = -2$



16.

- a) $-\frac{1}{2}$
- b) 7
- c) 42
- d) 2

17. $(-\frac{1}{2}, 0) \cup (0, \infty)$

18. $(-1, 0) \cup (2, \infty)$

19. $[-\frac{3}{2}, 0) \cup (1, \infty)$

20. $(-2, 0) \cup (0, 1)$