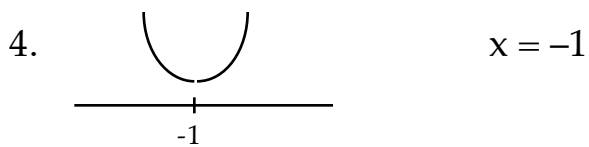


Problem Set 45

2. B, D



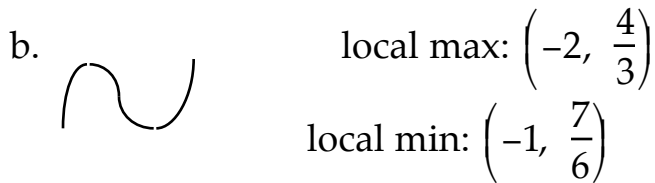
6.
$$\frac{dy}{dx} = \frac{-2x}{(x^2 + 1)^2}$$

8. use the definition: 3

10. $S_m \approx 2.052$

12. $y' = -\csc^2 x$

14a. $x = -2, -1$



16.
$$\frac{dy}{dx} = -\frac{3}{2}x^2(x^3 + 5)^{-\frac{3}{2}}$$

18. $s'(t) = v_0 + gt$

20. $4 \ln|u| - \frac{3}{14}u^{-14} + C$

22. Domain: $\{x \in \mathfrak{R} \mid |x| \geq 1\}$
Range: $\{y \in \mathfrak{R} \mid y \geq 0\}$

24. 530