

## PROBLEMS

1. Let  $f(x) = x^2 + 2x + 1$ . Find  $f'(x)$ .

2. Let  $f(x) = x^3 - 3x^2 + 2x - 1$ . Find  $f'(x)$ .

3. Let  $f(x) = \frac{1}{x}$ . Find  $f'(x)$ .

4. Let  $f(x) = \sqrt{x}$ . Find  $f'(x)$ .

5. Let  $f(x) = \ln(x)$ . Find  $f'(x)$ .

6. Let  $f(x) = e^x$ . Find  $f'(x)$ .

7. Let  $f(x) = \sin(x)$ . Find  $f'(x)$ .

8. Let  $f(x) = \cos(x)$ . Find  $f'(x)$ .

9. Let  $f(x) = \tan(x)$ . Find  $f'(x)$ .

10. Let  $f(x) = \cot(x)$ . Find  $f'(x)$ .

11. Let  $f(x) = \sec(x)$ . Find  $f'(x)$ .

12. Let  $f(x) = \csc(x)$ . Find  $f'(x)$ .

13. Let  $f(x) = \arcsin(x)$ . Find  $f'(x)$ .

14. Let  $f(x) = \arccos(x)$ . Find  $f'(x)$ .

15. Let  $f(x) = \arctan(x)$ . Find  $f'(x)$ .

16. Let  $f(x) = \operatorname{arccot}(x)$ . Find  $f'(x)$ .

17. Let  $f(x) = \operatorname{arcsec}(x)$ . Find  $f'(x)$ .

18. Let  $f(x) = \operatorname{arccsc}(x)$ . Find  $f'(x)$ .

19. Let  $f(x) = \operatorname{arcosh}(x)$ . Find  $f'(x)$ .

20. Let  $f(x) = \operatorname{artanh}(x)$ . Find  $f'(x)$ .

21. Let  $f(x) = \operatorname{arcsinh}(x)$ . Find  $f'(x)$ .

22. Let  $f(x) = \operatorname{arcoth}(x)$ . Find  $f'(x)$ .

23. Let  $f(x) = \operatorname{arccoth}(x)$ . Find  $f'(x)$ .

24. Let  $f(x) = \operatorname{arctanh}(x)$ . Find  $f'(x)$ .

25. Let  $f(x) = \operatorname{arcsinh}(x)$ . Find  $f'(x)$ .

26. Let  $f(x) = \operatorname{arccosh}(x)$ . Find  $f'(x)$ .

27. Let  $f(x) = \operatorname{arctanh}(x)$ . Find  $f'(x)$ .

28. Let  $f(x) = \operatorname{arcsinh}(x)$ . Find  $f'(x)$ .

29. Let  $f(x) = \operatorname{arccosh}(x)$ . Find  $f'(x)$ .

30. Let  $f(x) = \operatorname{arctanh}(x)$ . Find  $f'(x)$ .