

## Practice Differentiation Problems

1.  $\frac{d}{dx} (2 + \sqrt{3}) = \underline{\hspace{2cm}}$

3.  $\frac{d}{dt} (3 - 4t) = \underline{\hspace{2cm}}$

5.  $\frac{d}{du} \frac{2u - 1}{5} = \underline{\hspace{2cm}}$

7.  $\frac{d}{dv} 2(3v - 1)^3 = \underline{\hspace{2cm}}$

9.  $\frac{d}{dw} 5(2 - 3w)^5 = \underline{\hspace{2cm}}$

11.  $\frac{d}{dx} \left(\frac{x}{3} - 2\right)^3 = \underline{\hspace{2cm}}$

13.  $\frac{d}{dr} \frac{2}{(2r + 3)^3} = \underline{\hspace{2cm}}$

15.  $\frac{d}{dt} (3t^3 - t^2) = \underline{\hspace{2cm}}$

17.  $\frac{d}{du} (4 - u^2) = \underline{\hspace{2cm}}$

19.  $\frac{d}{dv} \frac{1 - 3v^2}{2} = \underline{\hspace{2cm}}$

21.  $\frac{d}{dw} (w^2 - 1)^2 = \underline{\hspace{2cm}}$

23.  $\frac{d}{dt} \sqrt{t^2 - 1} = \underline{\hspace{2cm}}$

25.  $\frac{d}{dp} \frac{3}{p^2 + 3} = \underline{\hspace{2cm}}$

27.  $\frac{d}{dx} 3 \ln(3x - 1) = \underline{\hspace{2cm}}$

29.  $\frac{d}{dx} 2e^{4x} = \underline{\hspace{2cm}}$

31.  $\frac{d}{dr} 12e^{r/4} = \underline{\hspace{2cm}}$

33.  $\frac{d}{du} [5 - 2 \ln(u/2)] = \underline{\hspace{2cm}}$

35.  $\frac{d}{dv} (v^3 + 3v) = \underline{\hspace{2cm}}$

37.  $\frac{d}{dw} \left(w^2 - \frac{1}{w^2}\right) = \underline{\hspace{2cm}}$

39.  $\frac{d}{dx} x \ln(x) = \underline{\hspace{2cm}}$

41.  $\frac{d}{dr} r^2 \ln(r) = \underline{\hspace{2cm}}$

43.  $\frac{d}{dt} t \ln(t^2 + 1) = \underline{\hspace{2cm}}$

45.  $\frac{d}{du} u^2 e^{3u} = \underline{\hspace{2cm}}$

47.  $\frac{d}{dv} \frac{\ln(3v)}{v} = \underline{\hspace{2cm}}$

49.  $\frac{d}{dw} \frac{\ln(w + 1)}{w} = \underline{\hspace{2cm}}$

2.  $\frac{d}{dx} (3x - 1) = \underline{\hspace{2cm}}$

4.  $\frac{d}{dt} \frac{t}{3} = \underline{\hspace{2cm}}$

6.  $\frac{d}{du} \frac{5 - 6u}{2} = \underline{\hspace{2cm}}$

8.  $\frac{d}{dv} 4\sqrt{v - 2} = \underline{\hspace{2cm}}$

10.  $\frac{d}{dw} 2\sqrt{1 - w}^3 = \underline{\hspace{2cm}}$

12.  $\frac{d}{dx} \frac{4}{3x + 1} = \underline{\hspace{2cm}}$

14.  $\frac{d}{dr} \frac{3}{\sqrt{2r - 5}} = \underline{\hspace{2cm}}$

16.  $\frac{d}{dt} t^2 = \underline{\hspace{2cm}}$

18.  $\frac{d}{du} (6u - u^3) = \underline{\hspace{2cm}}$

20.  $\frac{d}{dv} v(v - 1) = \underline{\hspace{2cm}}$

22.  $\frac{d}{dw} (2 - w^2)^3 = \underline{\hspace{2cm}}$

24.  $\frac{d}{dt} 4\sqrt{t^2 - t + 1} = \underline{\hspace{2cm}}$

26.  $\frac{d}{dp} \frac{5}{\sqrt{p^2 + 2}} = \underline{\hspace{2cm}}$

28.  $\frac{d}{dx} 2 \ln(5 - 2x) = \underline{\hspace{2cm}}$

30.  $\frac{d}{dx} 3e^{-2x} = \underline{\hspace{2cm}}$

32.  $\frac{d}{dr} 5e^{-r/2} = \underline{\hspace{2cm}}$

34.  $\frac{d}{du} [6 + 3 \ln(4 - x)] = \underline{\hspace{2cm}}$

36.  $\frac{d}{dv} (2v^2 + v - 1) = \underline{\hspace{2cm}}$

38.  $\frac{d}{dw} (4w^2 - w + 2) = \underline{\hspace{2cm}}$

40.  $\frac{d}{dx} x \ln(x + 1) = \underline{\hspace{2cm}}$

42.  $\frac{d}{dr} r e^{2r} = \underline{\hspace{2cm}}$

44.  $\frac{d}{dt} t \ln(5 - t) = \underline{\hspace{2cm}}$

46.  $\frac{d}{du} 2u e^{-u/2} = \underline{\hspace{2cm}}$

48.  $\frac{d}{dv} \frac{e^{v/4}}{6v^2} = \underline{\hspace{2cm}}$

50.  $\frac{d}{dw} \frac{e^{3w}}{w^2} = \underline{\hspace{2cm}}$