Stewart Section 7-1 Homework Hints:

3.
$$u = x$$
 $v' = \cos(5x)$

4.
$$u = y$$
 $v' = e^{0.2y}$

5.
$$u = t$$
 $v' = e^{-3t}$

6.
$$u = x - 1$$
 $v' = \sin(\pi x)$

7.
$$u = x^2 + 2x$$
 $v' = \cos(x)$ Use tabular method or repeated iterations

8.
$$u = t^2$$
 $v' = \sin(\beta t)$ Use tabular method or repeated iterations

9.
$$\ln\left(\sqrt[3]{x}\right) = \ln\left(x^{\frac{1}{3}}\right) = \frac{1}{3} \cdot \ln(x)$$
; $u = \ln(x)$ $v' = \frac{1}{3}$

10.
$$u = \arcsin(x)$$
 $v' = 1$

11.
$$u = \arctan(4t)$$
 $v' = 1$

12.
$$u = \ln(p)$$
 $v' = p^5$

13.
$$u = t$$
 $v' = \sec^2(t)$

14.
$$u = s$$
 $v' = 2^s$

23.
$$u = x$$
 $v' = \cos(\pi x)$

24.
$$u = x^2 + 1$$
 $v' = e^{-x}$ Use tabular method or repeated iterations

27.
$$u = \ln(r)$$
 $v' = r^3$

28.
$$u = t^2$$
 $v' = \sin(2t)$ Use tabular method or repeated iterations