

name:

SEPARABLE DIFFERENTIAL EQUATIONS WORKSHEET

- (a) Separate the x 's and the y 's
(b) Integrate both sides
(c) Solve for y

1. $y' = -\pi$

2. $y' = y^2x$

3. $y' = yx^2$

4. $y' = \sin(x) \tan(y)$

5. $y' = e^x \cos^2(y)$

6. $y' = x(x - 2)/y$

7. $y' = x^2e^{-y} - 2xe^{-y}$

8. $y' \sqrt{y - x^2y} = -xy$

9. $x^2 + 2yy' = 3x$

10. $x^2y' + 2xy = 3x$