

NAME \_\_\_\_\_ CORRECT \_\_\_\_\_/12

1.  $y = \sin x - 3 \sec x + 5 \cot x$

2.  $y = \cos(2x^3)$

3.  $y = x^5 \csc x$

4.  $y = \csc^5 x$

5.  $y = \csc(x^5)$

6.  $y = \frac{x + \tan x}{x^3 - \sin x}$

**7.**  $y = (3 - x + \frac{4}{x}) \tan(x^2 + 1)$

**8.**  $y = \sqrt{\frac{\sin(2x+1)}{\cos(3-2x^2)}}$

**9.**  $y = \left( \frac{\sin x}{x^3 \cot(1/x)} \right)^{50}$

**10.**  $y = \sin(\cos(x^3))$

**11.**  $y = x^3 \sin x \cos x$

**12.**  $z = r(s^{4r} - sr) \cot\left(rs + \frac{3}{\sqrt{s}}\right) + rs - \sqrt{s}$  (Find  $dz/ds$ . The number  $r$  is a constant.)