(C1-8.2) Name:

Homework Questions 2 – Integration

Find either y or f'(x) when given... (Simplify your answers if possible)

1.

$$\frac{dy}{dx} = 3x^4 + 2x^2$$

2. $f'(x) = 6x^5 - 3x^4$

3.

$$\frac{dy}{dx} = 2x^4 - 3x^2 + x + 2$$

4.

$$\frac{dy}{dx} = 4x^3 - 2x^{\frac{1}{2}} + 3$$

5.

$$\frac{dy}{dx} = 10x - 4x^3 + 2x^{-3}$$

6. $f'(x) = 7x^2 + 5x + 4$

7. $f'(x) = -3x^{-4} - 2x^{-3} + 6$

8.

$$\frac{dy}{dx} = x^{\frac{1}{2}} + x^{\frac{1}{3}} - x^{\frac{1}{4}}$$

9.

$$\frac{dy}{dx} = x^{-\frac{2}{3}} + 2x^{\frac{1}{2}} - 3x$$

10. $f'(x) = 6 - 5x^{\frac{2}{3}} - 4x^{\frac{3}{4}}$