(C1-8.1) Name:

Homework Questions 1 – Basic Integration

Find an expression for y when $\frac{dy}{dx}$ is:

1. $\frac{dy}{dx} = x^2$

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

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

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

5. $\frac{dy}{dx} = -2x^5$

6. $\frac{dy}{dx} = -4x^2$

7. $\frac{dy}{dx} = 2x^{-3}$

8. $\frac{dy}{dx} = -3x^{-2}$

9. $\frac{dy}{dx} = 3 \cdot 6x^{0 \cdot 2}$

10. $\frac{dy}{dx} = -2 \cdot 4x^{-.2 \cdot 2}$

11. $\frac{dy}{dx} = x^{\frac{1}{2}}$

12. $\frac{dy}{dx} = -2x^{-\frac{1}{2}}$

13. $\frac{dy}{dx} = -5x^{-2}$

14. $\frac{dy}{dx} = 3x^{-\frac{2}{3}}$

15. $\frac{dy}{dx} = -4x^{-\frac{1}{4}}$

16. $\frac{dy}{dx} = -x^{\frac{3}{4}}$

17. $\frac{dy}{dx} = 4$

18. $\frac{dy}{dx} = -6x$

19. $\frac{dy}{dx} = 5x^{4}$

20. $\frac{dy}{dx} = -6x^{-3}$