

Math 3 Quiz Study Sheet – Antiderivatives

Name: _____

Section: _____

Find the antiderivatives of each of the following 30 functions. On Friday, November 3, you will be asked for the antiderivatives of 15 of these (selected in advance by your instructors).

1. $-2/x^2$ _____
2. $\sin(x)$ _____
3. $\cos(2x)$ _____
4. \sqrt{x} _____
5. $3x^{11} + 1$ _____
6. 0 _____
7. $\sin(x) \cos(x)$ _____
8. $\sec^2(5x)$ _____
9. $1/(x + 7)^2$ _____
10. $\sin^2(x) \cos(x)$ _____
11. π _____
12. $(1 + x)^{10}$ _____
13. $\sin(x) \cot(x)$ _____
14. $x^3 + 3x^2 + 3x + 1$ _____
15. $\sin^2(x) + \cos^2(x) + x$ _____
16. $x\sqrt{x}$ _____
17. $(2x + 1)^2$ _____
18. $\sec(x) \tan(x)$ _____
19. $4\pi x^2$ _____
20. $\tan^2(x)$ _____
21. $x^2 \cos(x) + 2x \sin(x)$ _____
22. $-2x/(x^2 + 1)^2$ _____
23. $x^2 + 1/x^2$ _____
24. $1/x^2 + 2/x^3 + 3/x^4$ _____
25. $x^2 + x^3 + x^4$ _____
26. $\csc(x) \cot(x)$ _____
27. $2\pi x$ _____
28. $3 \cdot 2x \cdot (x^2 + 1)^2$ _____
29. $x^{-1} \sec^2(x) - x^{-2} \tan(x)$ _____
30. $x^{3/100}$ _____