

Student ID		

Last Name: _____

First Name: _____

Show all your work.
If necessary, use extra sheets.

When appropriate,
BOX your final answer.

MA1
Homework

13

In problems 1 – 14, find dy/dx .

1. $y = 4x^7$

2. $y = -3x^{12}$

3. $y = 3x^8 + 2x + 1$

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

5. $y = \pi^3$

6. $y = \sqrt{2}x + \frac{1}{\sqrt{2}}$

7. $y = -\frac{1}{3}(x^7 + 2x - 9)$

8. $y = \frac{x^2 + 1}{5}$

9. $y = ax^3 + bx^2 + cx + d$ (a, b, c, d constant)

10. $y = \frac{1}{a} \left(x^2 + \frac{1}{b}x + c \right)$ (a, b, c constant)

11. $y = -3x^{-8} + 2\sqrt{x}$

12. $y = 7x^{-6} - 5\sqrt{x}$

13. $y = x^{-3} + \frac{1}{x^7}$

14. $y = \sqrt{x} + \frac{1}{x}$