

MA1 Homework 27

In 1 – 2, find $\frac{d^2y}{dx^2}$.

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

2. $y = (5x^2 - 3)(7x^3 + x)$

In 3 – 4, find y''' .

3. $y = \frac{1}{x}$

4. $y = ax^3 + bx + c$ (a, b, c constant).

5. Show that $y = x^3 + 3x + 1$ satisfies $y''' + xy'' - 2y' = 0$.

In 6 – 8, find $\frac{d^2y}{dx^2}$.

6. $y = x \sin x - 3 \cos x$

7. $y = \sin x \cos x$

8. $y = \cos(4x^3)$