

## 8.10: Projects

1. For constant velocity, we have a single equation, for  $x(t)$ . For constant acceleration, there are three equations:  $x(t)$ ,  $v(t)$ , and  $v(x)$ . Now let's continue this: how many such equations do you expect for constant jerk? And what are those equations?
2. Continuing with the previous problem: how many such equations do you expect should exist for constant jounce?
3. Continue by generalizing the previous two problems: for constant  $d^n x / dt^n$ , how many equations should you get? And what are those equations?

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