Programming Documentation

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Hello my name is Anthony Low.

2   Goals

Vieta's Formulas:

$r + s = -b/a$ and $rs = c/a$ for all quadratics $ax^2 + bx + c = 0$

Proof:

1. Quadratics are also written in the from $a(x - r)(x - s) = 0$
2. Expanding this form gives $ax^2 - a(r + s)x + ars = 0$
3. Like terms imply:
    1. $-a(r + s) = b$

$$\boxed{r + s = -b/a}$$

    2. $ars = c$

$$\boxed{rs = c/a}$$

3   PID

4   Chassis Movement

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