Proof Portfolio Problem 4

Chose one problem from each numbered group. For example, choose only one of 4A, 4B, and 4C.

Conjecture 4A. For all real numbers b, if $b > 4$ then $\dfrac{b^2 - 3b + 16}{2b + 2} > 2$.

Conjecture 4B. For all integers z, if $z^3 - 4z$ is even then z is even.

Conjecture 4C. For all integers x and y if $3 \nmid x + y$ then $3 \nmid x$ or $3 \nmid y$.