

**ALGEBRA 2 HONORS TUNE-UP CHAPTERS 1-11**

SHOW WORK. NO CALCULATORS. Give exact simplified answers.

1. Solve $4 3x-2  \leq 28$ .	2. Find the inverse of $f(x) = \frac{16x^4 - 1}{3}$ .
3. Factor over the real numbers: $(x^4 + 8x - 9)(27x^3 - 8)$	4. Simplify: $\frac{7 \cdot \sqrt[4]{7}}{\sqrt[3]{49}}$ .
5. If $a = 4 - 2i$ and $b = 3 - 5i$ , find: a) $ab$  b) $\frac{a}{b}$	6. Find the vertex and direction of opening for the parabola $y^2 + 6y + x + 2 = 0$ .

