Algebra 2H
Tuneup 8B 2013

Name_____

Period_____ Column_____

SHOW WORK NEATLY. NO CALCULATORS!

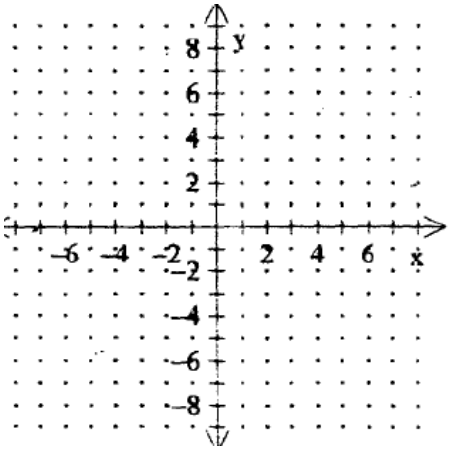
1. Solve $3\left\|4x-2\right\|-5>1$	2. Solve by completing the square: $9x^2 - 36x - 72 = 0$
3. Simplify: $\frac{\sqrt[4]{27}}{\sqrt[3]{9}}$	4. If $A = 2 - 3i$ and $B = -1 + 4i$, find $\frac{A}{B}$.
5. Determine the nature of the solutions of $4x^2+3x-2=0$ without solving.	6. Write the equation of a parabola congruent to $y=\frac{4}{3}(x+2)^2-1$ if it is shifted left 3 units and up 5 units.
7. Simplify: $\frac{\left(5x^{-3}y^{-2}\right)^{-1}\left(4x^{-2}\right)^2}{\left(3xy^2\right)^{-2}}$	8. Write and multiply out a polynomial function with zeros -3, $\frac{2}{3}$, and $2i$.

9. Solve. Check for extraneous solutions.

$$\sqrt[3]{7x-9}+11=14$$

10. Find the inverse of $f(x)=3\sqrt{2x+1}$.

11. Classify the conic $x^2-4y^2-6x-16y+29=0$ and write in standard form by completing the square. Then graph it. Find and locate foci.



12. Simplify: $\dfrac{x}{x^2-4}+\dfrac{2}{x^2-2x}-\dfrac{x+1}{x^2+2x}$

13. Simplify: $\dfrac{\dfrac{1}{x^3}-1}{\dfrac{1}{x^2}-1}$

14. Graph $x=\dfrac{-1}{8}(y+1)^2-2$.

Identify and locate focus and directrix.