Name_____ Date_____

Per._____ Col._____

ALGEBRA 2 TUNE-UP CHAPTERS 1-4

SHOW ALL WORK. NO CALCULATORS!

1. Evaluate, if a = -2 and b = 3. $\dfrac{4a-ab^2+b}{(2a-1)^2}$	2. Solve for x: $bx=\dfrac{2x-y}{c}$
3. Solve and graph: $\lvert 2x-3\rvert \le 15$	4. Solve algebraically: $4x-2y=16$, $2x=y+8$
5. Graph the system in the coordinate plane: $2x-3y<6$, $y>\dfrac{-4}{3}x+8$	6. Solve $3x-2y-3z=1$, $2x+3y+z=4$, $x+2y-z=-5$

7. Solve by using a matrix equation and the inverse:

$$3x+y=8$$
$$5x+2y=11$$

8. **A restaurant manager bought 20 packages of bagels. Some packages contained 6 bagels each, and the rest contained 12 bagels each. There were 168 bagels in all. How many packages of 12 bagels did the manager buy?**

9. Evaluate $f(-3)$ if

$$f(x)=\begin{cases} 4x-2, & x\geq 3 \\ 6-2x, & x<3 \end{cases}$$

10. Simplify:

$$3x\left(2x^2-3x+4\right)-4x\left(5x-3x^3+2\right)$$

11. Expand by minors:

$$\begin{vmatrix} 4 & 3 & 0 & -1 \\ 2 & -1 & 3 & 0 \\ 1 & 2 & 0 & 4 \\ 3 & 0 & 1 & -1 \end{vmatrix}$$