Last Chance Review for Final Exam

**Solve questions 1-9**

1. $\frac{2}{3}k - 12 = -18$
2. $21 = 41 - \frac{5}{4}x$
3. $36 = 5x - 3(3x - 4)$
4. $3 - (x - 4) = 5 + 4(x - 2)$
5. $-3m - 3 < -15$
6. $16 - (5 - 4x) \geq 4(3x - 5) - 2$
7. $2|2x - 3| = 10$
8. $|x - 3| < 7$
9. $|4x - 2| \geq 10$

**Graph questions 10-13**

10. $2x - 4y = 4$
11. $y = -\frac{4}{3}x - 3$
12. $y = -x + 1$
13. $y = -\frac{1}{4}x$

14. Write in slope-intercept form: 5x - 4y = 16
15. Find the slope: (-6, 5) and (-8, 2)

**Find the equation of the line with the given information and write in slope-intercept form (questions 16-19).**

16. slope of ¾ and passes through the point (12, 4)
17. passes through the points (-2, 5) and (-8, 8)
18. is parallel to $y = -\frac{4}{5}x - 2$ and contains the point (-10, -4).
19. is perpendicular to $y = \frac{4}{3}x + 2$ and passes through the point (8, -1).

**Solve system by graphing:**

20. $\begin{cases} 2x - y > -6 \\ x + 4y < -4 \end{cases}$
21. $\begin{cases} 3x - 2y = 6 \\ y = 2x - 3 \end{cases}$

**Solve system by substitution or elimination:**

22. $\begin{cases} y = 6x - 2 \\ y = 3x + 7 \end{cases}$
23. $\begin{cases} 6x - 2y = -10 \\ y = -4x - 2 \end{cases}$
24. $\begin{cases} x - 3y = 11 \\ 3x + 3y = -3 \end{cases}$
25. $\begin{cases} 4x + 6y = 4 \\ 4x - 3y = 22 \end{cases}$
26. $\begin{cases} 7x - 2y = -1 \\ 3x - 4y = 9 \end{cases}$
27. $\begin{cases} 5x - 4y = -10 \\ 2x + 3y = -4 \end{cases}$
28. $\begin{cases} 6x + 5y = 2 \\ 2x + 3y = -2 \end{cases}$

**Simplify:**

29. $\frac{15x^5y^3}{25x^3y}$
30. $\frac{6x^{-2}y^0}{3x^2y^2}$
31. $\frac{5d^8r^{-2}}{10d^3r^3}$
32. $(2a^2b^5)^2$
33. $(3a^5b^8)(-5a^2b)$
33. $6(2x - 3) - 3(x - 2)$
34. $(5x^2 - 4x + 12) - (7x^2 - 10x - 15)$
35. Evaluate when a = 2, b =-2, and c = -3: $6ab \div c + ac$