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| **MAT 0012C** | **Name: _____** |
| **Chapter 2 (Equations) 2.6, 2.7, & 2.8** | **Date: _____** |
| **Practice for the Test** | **Section: _____** |

You MUST show your work to receive full credit. This exam is worth 100 points. Each problem is worth 4 points. Good Luck!

1. What is the numerical coefficient of the second term of $8A + 5X + 15B - 4BC$?

Simplify by combining like terms:

2. $8x - 3 + 32x - 16$ _____
3. $4a - 2(9a - 6)$ _____
4. $-15a - 8 + 7b + 3a$ _____
5. $9x - 4y + x + 4y$ _____
6. $-2(5x + 3) - 3$ _____
7. $-5(x - 6) - 2(5x + 4)$ _____

Solve each equation:

8. $x - 14 = 5$
9. $-9y = 72$
10. $7x = 56$
11. $7y - 2 - 6y = 10$
12. $-8y - 10 + 10y = 4$
13. $4x - 5 = x + 1$
14. $7(7x + 5) = 6(8x + 3)$
15. $-2(x + 3) + 9x = 1$
16. $12x - 7 - 3x = 8 + (-6)$
17. $4(y - 5) = 8y$
18. $3(5x - 7) = 2(7x - 3)$
19. $9 + 2(7x - 4) = -27$

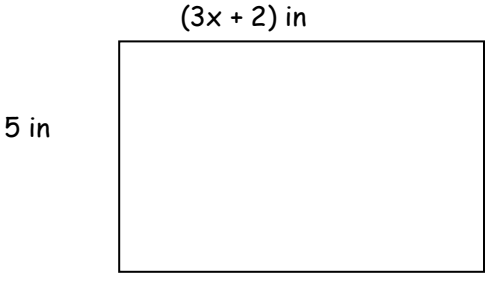
Write each as an equation, using "x" for a number:

20. The sum of four times a number and twelve is thirty four.
21. Three times the difference between a number and eight is equal to the quotient of the number and four.

Solve each application problem:

22. In a recent election, Tom received 450 more votes than his Democratic opponent, Mike. If a total of 966 votes were cast, how many votes did Tom receive?
23. A Ford Mustang is travelling three times as fast a Geo Metro in a 55 mph zone. They are travelling at a total speed of 100 mph. By how much is the driver of the Mustang speeding?

Find the perimeter (#24) and area (#25) of the following figure:



25.