**Name: Period: Job 24 Multiplying Polynomials**

**Part 1: Textbook**

Textbook Lesson 7-2 Page 273-274: 18, 19. 22, 23, 27, 28, 32, 33, 34, 36, 37

**Part 2: Algebra Regents Questions –**

1. Which trinomial is equivalent to $3\left(x-2\right)^{2}-2(x-1)$?

 (1) $3x^{2}-2x-10$ (3) $3x^{2}-14x+10$

 (2) $3x^{2}-2x-14$ (4) $3x^{2}-14x+14$

1. Jakhari and Michael work at Lowe’s. Jakhari is paid $185 per week plus 3% of his total sales in dollars, $x$, which can be represented by $g\left(x\right)=185+0.03x$. Michael is paid $275 per week plus 2.5% of his total sales in dollars, $x$, which can be represented by $f\left(x\right)=275+0.025x$. Determine the value of *x*, in dollars, that will make their weekly pay the same.
2. Express the product of $2x^{2}+7x-10$ and $x+5$ in standard form.
3. Fred is given a rectangular piece of paper. If the length of Fred's piece of paper is represented by $2x-6$ and the width is represented by $3x-5$, then the paper has a total area represented by

 (1) $5x-11$ (3) $10x-22$

 (2) $6x^{2}-28x+30$ (4) $6x^{2}-6x-11$

1. An on-line electronics store must sell at least $2500 worth of printers and computers per day. Each printer costs $50 and each computer costs $500. The store can ship a maximum of 15 items per day. On the set of axes below, graph a system of **inequalities** that models these constraints.



Determine a combination of printers and computers that would allow the electronics store to meet all of the constraints. Explain how you obtained your answer.

1. John has four more nickels than dimes in his pocket, for a total of $1.25. Which equation could be used to determine the number of dimes, $x$, in his pocket?

 (1) $0.10\left(x+4\right)+0.05\left(x\right)=\$1.25$

 (2) $0.05\left(x+4\right)+0.10\left(x\right)=\$1.25$

 (3) $0.10\left(4x\right)+0.05\left(x\right)=\$1.25$

 (4) $0.05\left(4x\right)+0.10\left(x\right)=\$1.25$