**Name: Period: Job 27 Factoring (**$a=1), (a>1)$

**Part 1: Textbook**

Textbook Lesson 7-5 Page 292: 22, 24, 26, 28, 34

Textbook Lesson 7-6 Page 299: 23, 24

**Part 2: Algebra Regents Questions –**

1. Four expressions are shown below.

 I $2\left(2x^{2}-2x-60\right)$

 II $4\left(x^{2}-x-30\right)$

 III $4\left(x+6\right)\left(x-5\right)$

 IV $4x\left(x-1\right)-120$

The expression $4x^{2}-4x-120$ is equivalent to

 (1) I and II, only (3) I, II, and IV

 (2) II and IV, only (4) II, III, and IV

1. Factor the expression $x^{2}+3x-18$
2. A store sells self-serv frozen yogurt sundaes. The function $C(w)$ represents the cost, in dollars, of a sundae weighing *w* ounces. An appropriate domain for the fuction would be

(1) integers (3) nonnegative integers

 (2) rational numbers (4) nonnegative rational numbers

1. Express $2x^{2}+3x-5$ as the product of to binomial factors
2. What is the *minimum* value of the function $y=|x+3|-2$.

(1) -2 (3) 3

 (2) 2 (4) -3

1. If $x-3$ is a factor of $x^{2}+x-12$, then the other factor is

(1) $4x-3$ (3) $x-4$

 (2) $3x-4$ (4) $x+4$

1. Written in factored form, the trinomial $3x^{2}+5x-2$ is equivalent to

(1) $(3x+1)(x-2)$ (3) $(3x+2)(x-1)$

 (2) $(3x-1)(x+2)$ (4) $(3x-2)(x+1)$

1. Which expression s eqivalent to $x^{2}+7x+6$ is equivalent to

(1) $(x+6)(x+1)$ (3) $(x+1)(x+7)$

 (2) $(x+3)(x+2)$ (4) $x(x+7)$

1. Graph the following function on the set of axes below.

$$f\left(x\right)=\left\{\begin{array}{c}\left|x\right|, \&-4\leq x<2\\4, \&2\leq x\leq 8\end{array}\right.$$

