Name:_____ **TA:_____**

Foundations of Math 10 LG 5 Ver A **/20**

Expectation #1: Determine prime factors, greatest common factors, and least common multiples of whole numbers.

1. Determine the Greatest Common Factor (GCF) of the following: 18, 30, & 54. (1 mark)

2. Identify the Least Common Multiple (LCM) of the following: 6 and 8. (1 mark)

Expectation #2: Determine the common factor of polynomials.

3. Factor completely. (2 marks each)

   a) $4x + 12$

   b) $21xy^3 - 14x^2y^2$

/6

Expectation #3: Factor trinomials.

4. Determine two values of *b* that allow the following expression to be factored: (2 marks)

$$x^2 + bx + 8$$

5. Factor completely. (2 marks each)

b) $x^2 - x - 20$

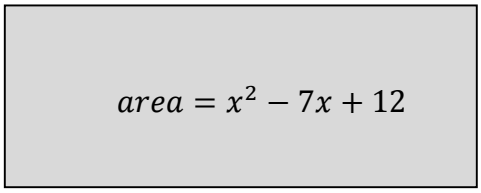
b) $x^2 + 6x + 9$

c) $2x^2 + 5x - 12$

d) $9x^2 - 21x + 6$

/10

6. Identify binomials that represent the length and width of the rectangle. Then calculate the length and width of the rectangle if $x = 5cm$. (2 marks)



Expectation #4: Factor a difference of squares (special trinomial).

7. Give an example of a difference of squares and then factor the expression. (2 marks)

/4