Name:_____ **TA:_____**

Foundations of Math 10 LG 4 Ver A

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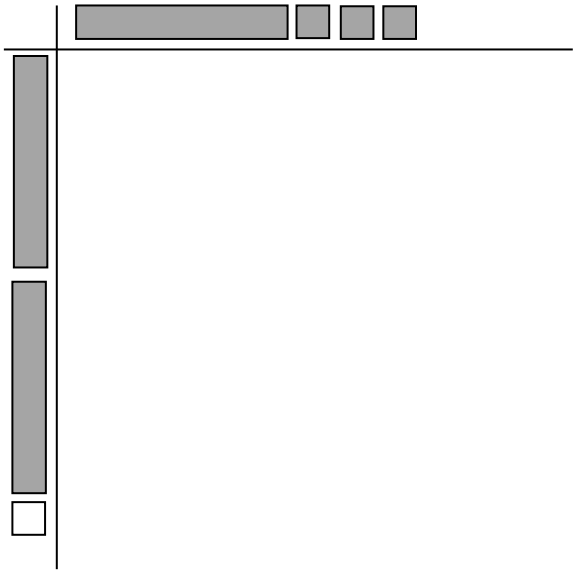
Expectation #1: Explain how multiplication of binomials is related to area and to the multiplication of two-digit numbers.

1. Show how you would multiply $(x + 3)(x - 2)$ with algebra tiles. (2 marks)

2. What are the dimensions of this algebra tile model and what product does the algebra tile model show? (2 marks)



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Expectation #2: Multiply polynomials.

3. Multiply using the distributive property. Combine like terms where possible. (2 marks each)

a) $(x+1)(x+4)$

b) $(x-2)^2$

c) $(2x-3)(x+5)$

d) $(4m-2k)(3m-5k)$

e) $(2x-3)(5x^3+2x^2-7)$

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

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4. A square rug of length *x* cm is cut to fit a doorway. If 8cm was cut from the length and 3cm was cut from the width, write an expression for the area of the trimmed rug. Multiply and then combine like terms. (2 marks)

5. Ted multiplied the expression $(3x-2)(5x-2)$. When he checked his answer, he found that he had made a mistake.

$$\begin{aligned}(3x-2)(5x-2) &= 3x(5x-2)-2(5x-2)\\ &= 15x^2-6x-10x-4\\ &= 15x^2-16x-4\end{aligned}$$

Indicate where Ted made his mistake and complete the correction for him. (2 marks)

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