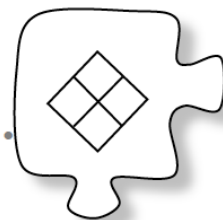


4.1.3 How can I factor this?

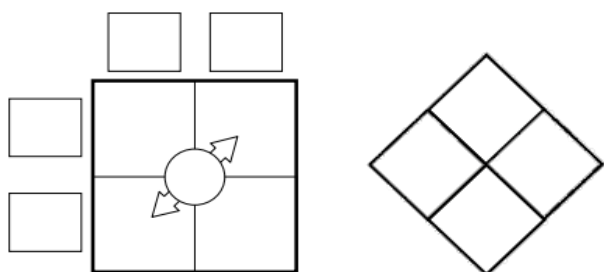


Factoring More Quadratics

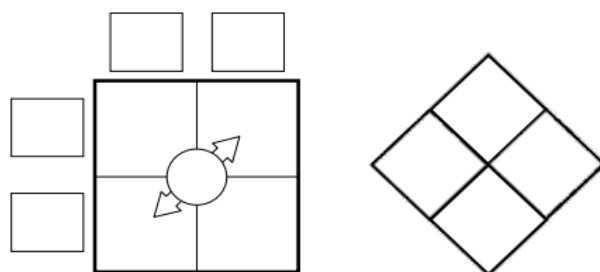
Practice your new method for factoring quadratic expressions without tiles as you consider special types of quadratic expressions.

4-24. Factor each quadratic expression below, if possible. Use a Diamond Problem and area model for each one.

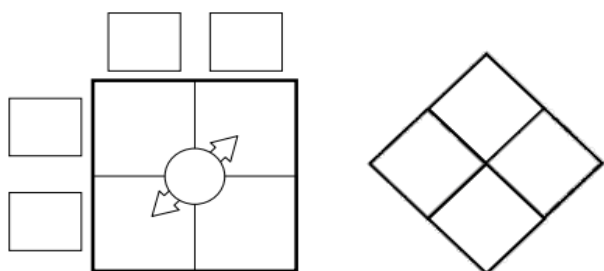
a. $x^2 + 6x + 9$



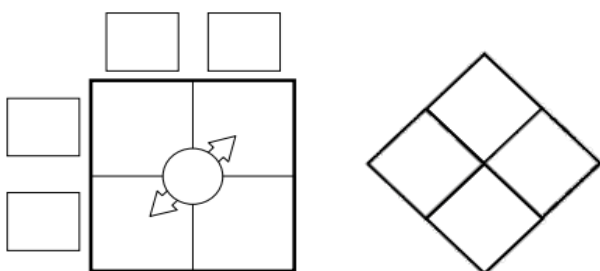
b. $2x^2 + 5x + 3$



c. $x^2 + 5x - 7$

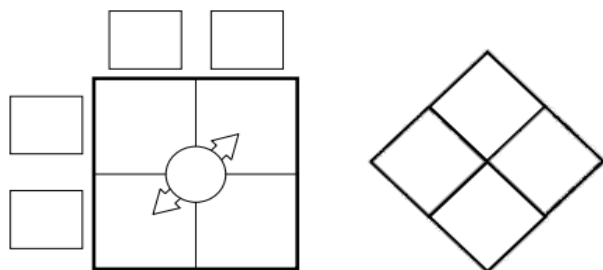


d. $3m^2 + m - 14$

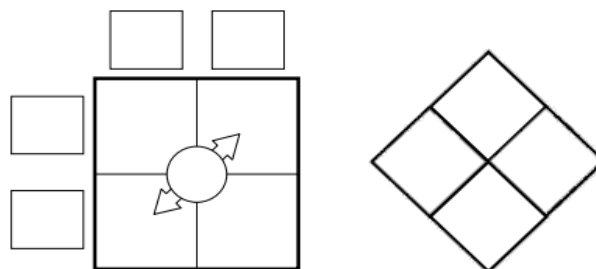


4-25. You have been working with quadratic expressions written in the form $ax^2 + bx + c$. But what if a term is missing? Or what if the terms are in a different order? Consider these questions while you factor the expressions below. Share your ideas with your teammates and be prepared to demonstrate your process for the class.

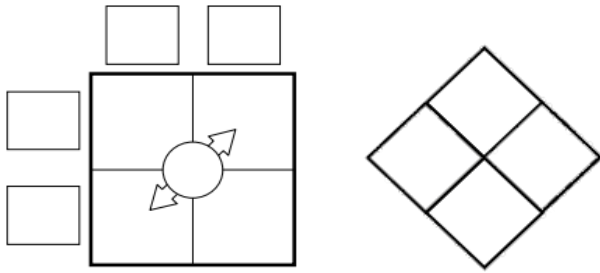
a. $9x^2 - 4$



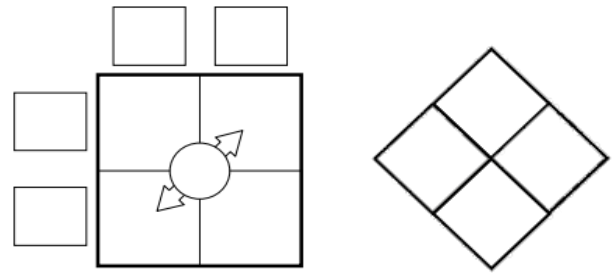
b. $12x^2 - 16x$



$$c. 3k^2 - 10k$$

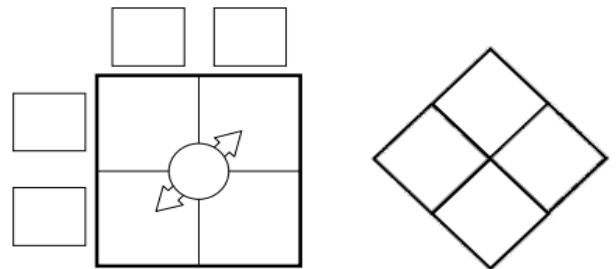


$$d. 40 - 100m$$



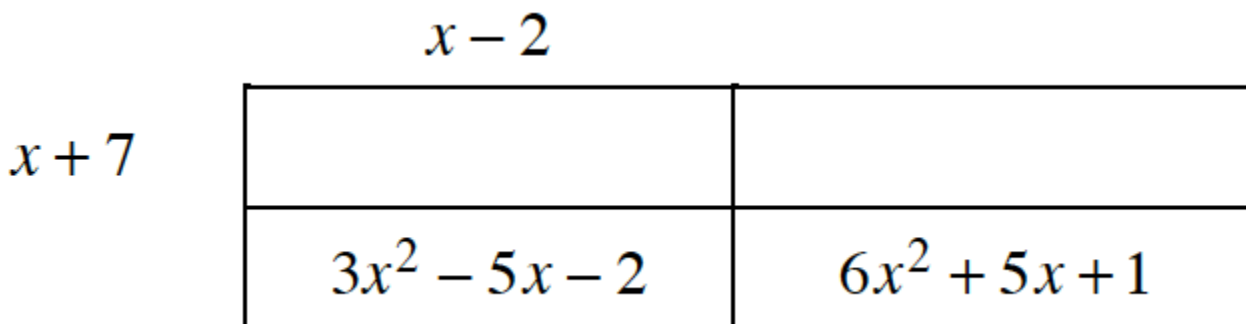
4-26. Now use an area model and a Diamond Problem to factor the expression below. Compare your answer with your teammates' answers. Is there more than one possible answer?

$$4x^2 - 10x - 6$$

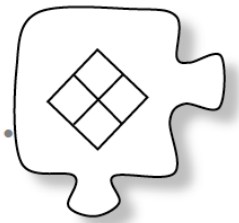


4-27. Emily Rae designed an area model puzzle for her team to solve.

- What are the missing portions of the area model?
- Write an equation that shows the area of the entire rectangle as a product equal to its area as a sum. Simplify where possible.



4.1.3 How can I factor this?

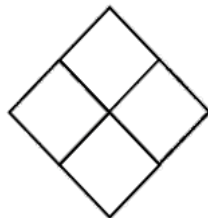
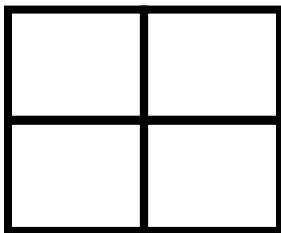


Factoring More Quadratics

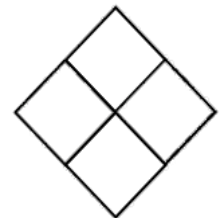
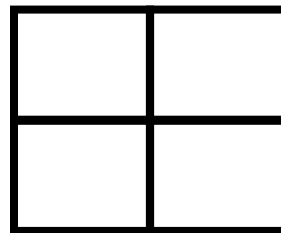
Practice your new method for factoring quadratic expressions without tiles as you consider special types of quadratic expressions.

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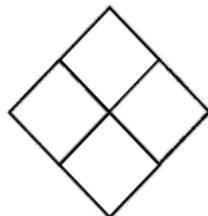
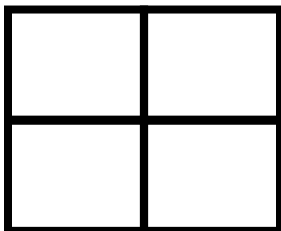
a. $x^2 + 6x + 9$



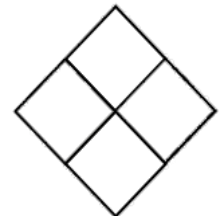
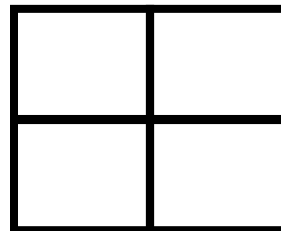
b. $2x^2 + 5x + 3$



c. $x^2 + 5x - 7$

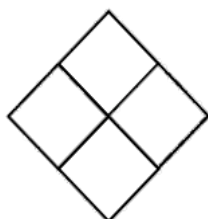
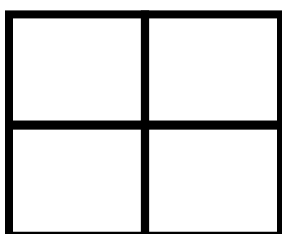


d. $3m^2 + m - 14$

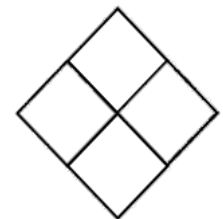


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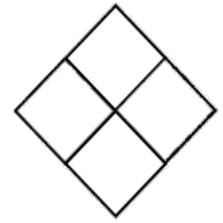
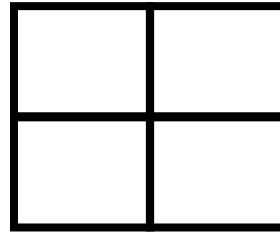
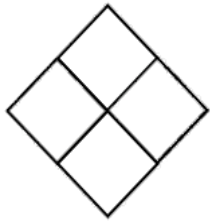
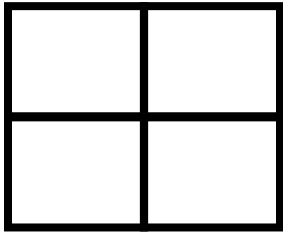


b. $12x^2 - 16x$



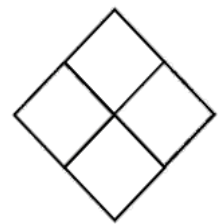
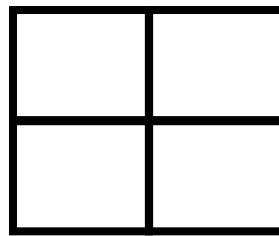
$$c. 3k^2 - 10k$$

$$d. 40 - 100m$$



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