WARM UP: Which One Doesn't Belong?

Directions: Work independently, then discuss your work with a partner.

A. $x^2 - 9$

B. $x^2 - 6x + 9$

C. $x^2 - 5x + 6$

_____ does not belong because _____

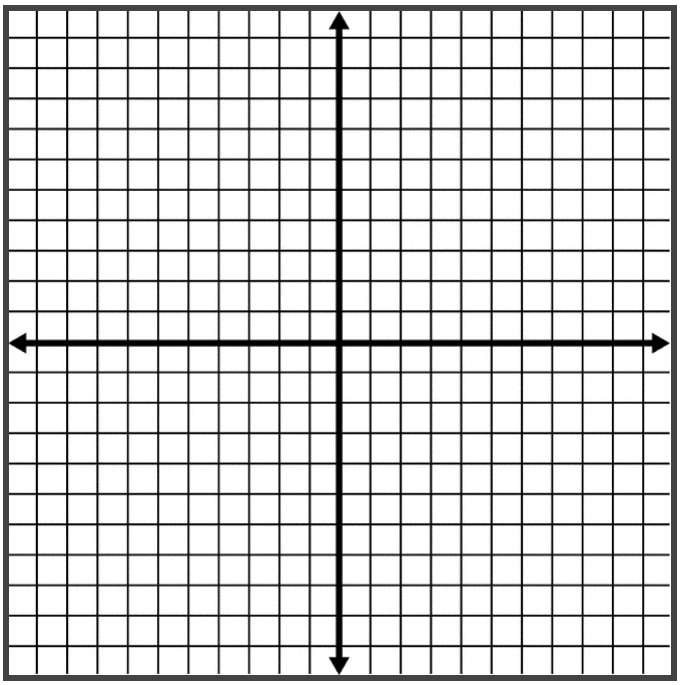
_____.

On the other hand, you could say that ____ does not belong because _____

_____.

EXPLORATION & WHOLE CLASS DISCUSSION: Connecting Representations

Create a Representation:



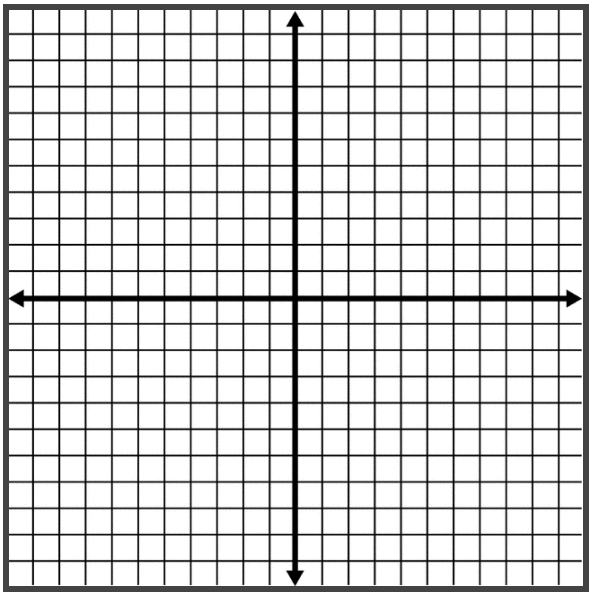
Reflection:

APPLICATION & REFLECTION: Work independently, then discuss with a partner.

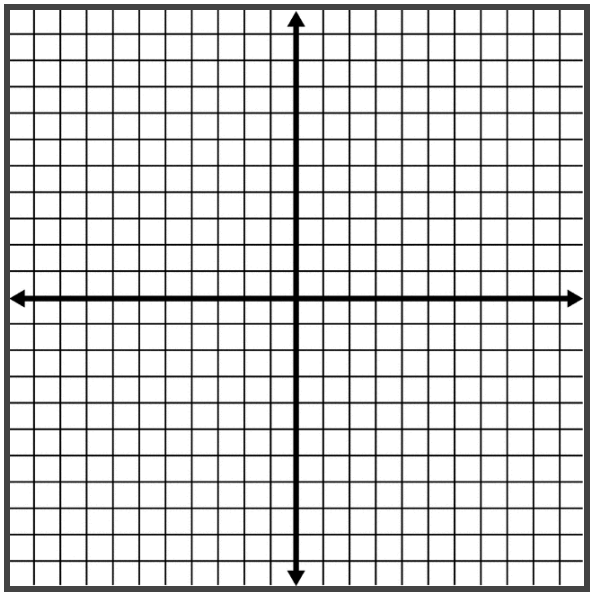
Directions:

- Find the solutions of the quadratic equations using graphing and factoring. Complete #1–4, and #10. Select any two questions from #5–9 to complete.
- Check your work with the key.
- Analyze your work for each question and respond to the prompt below.

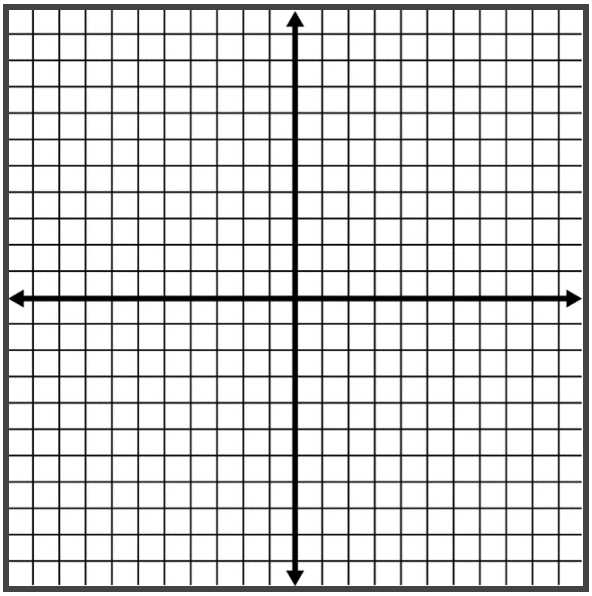
1. $0 = x^2 - 1$



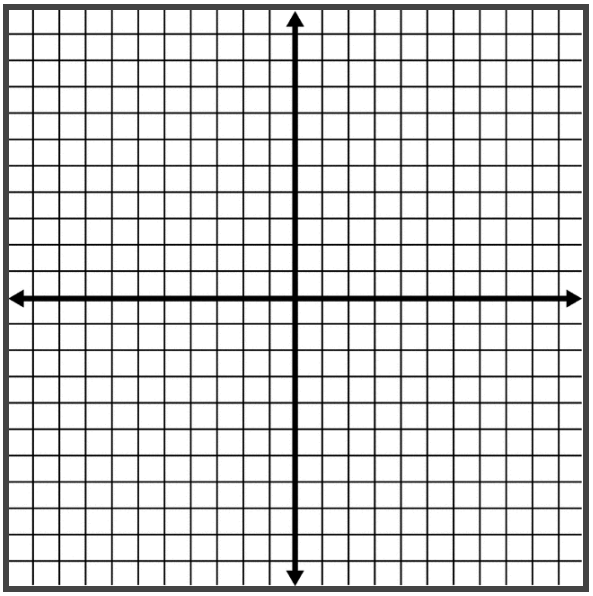
2. $0 = x^2 + 2x + 1$



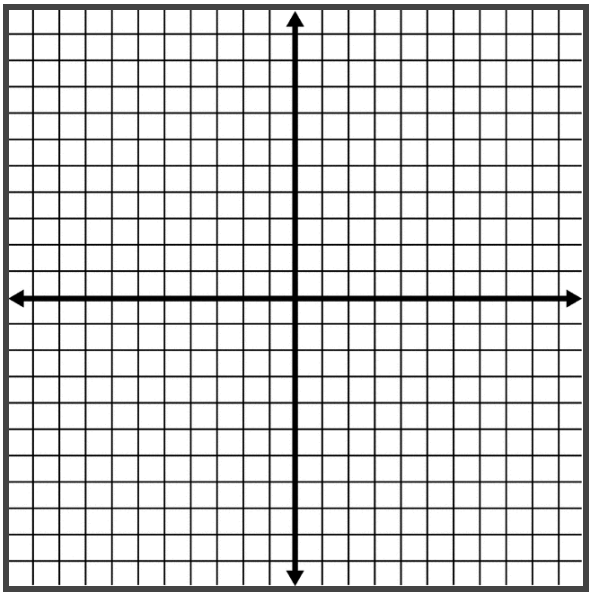
3. $0 = 5x^2 - 5$



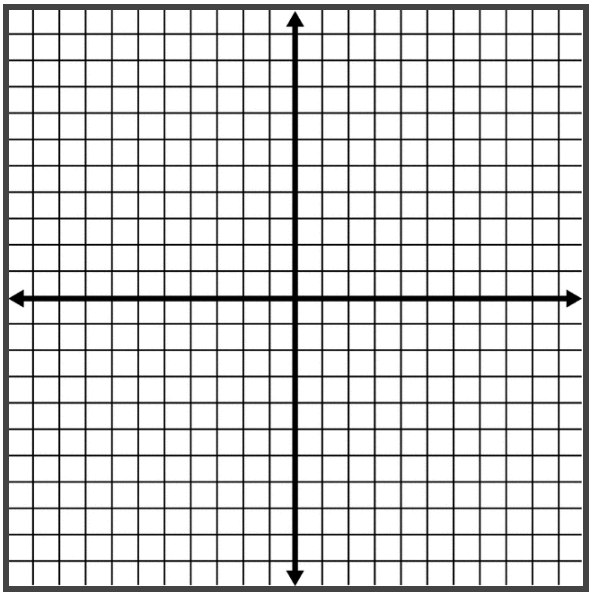
4. $0 = -x^2 + 1$



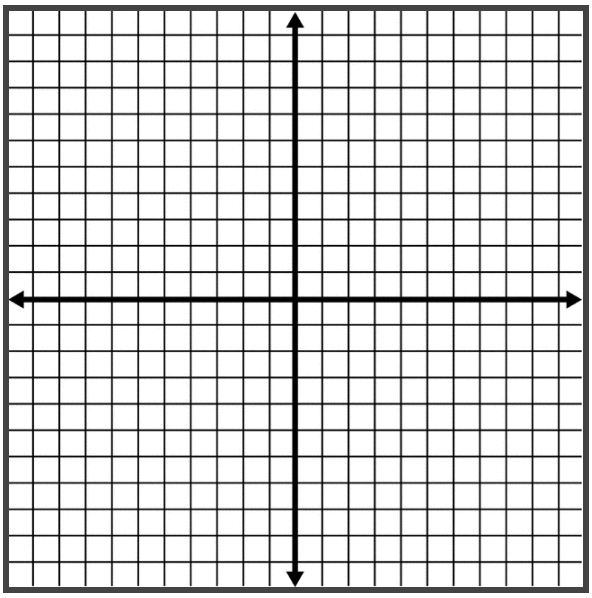
5. $0 = x^2 + 4x + 4$



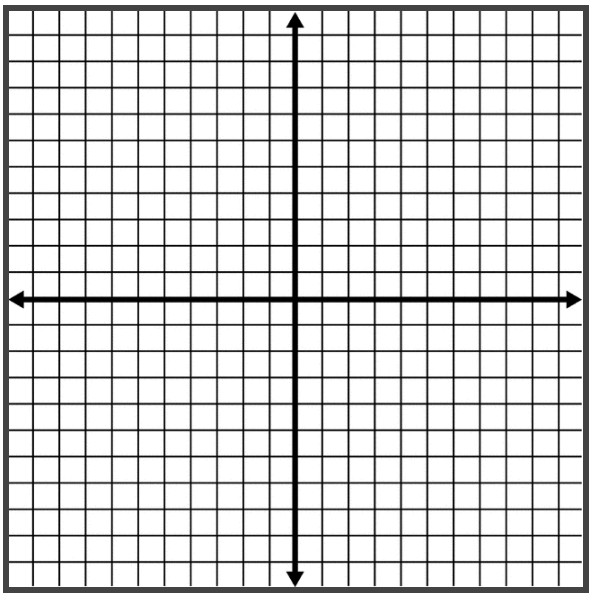
6. $0 = x^2 + 3x - 4$



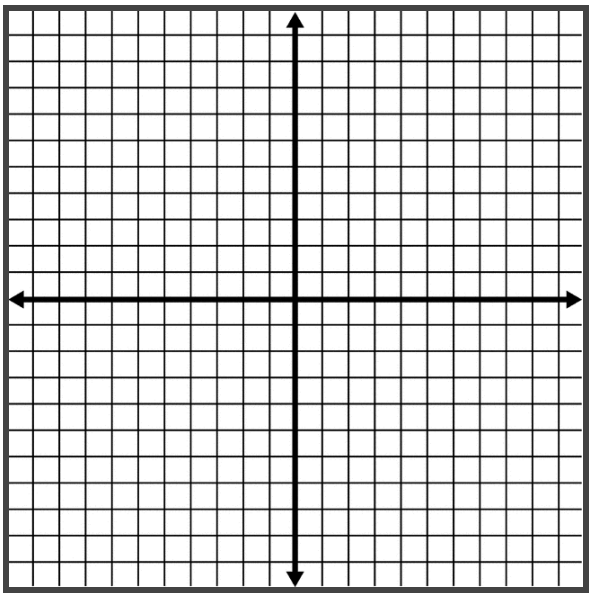
7. $0 = -2x^2 + 2x + 24$



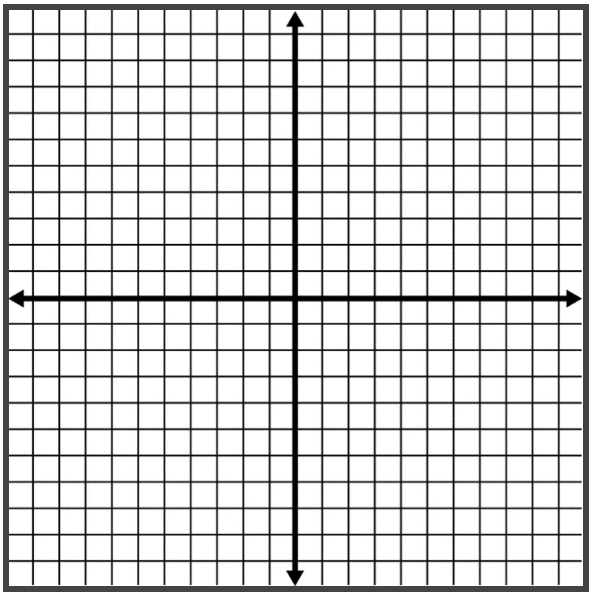
8. $0 = -x^2 + 6x - 9$



9. $0 = x^2 + 7x + 10$



10. $0 = x^2 + 2x + 3$



How is this equation different from the others you worked on?

CONNECTION: Unit 3

The zero product property states that _____

and allows us to _____

_____.

The zero product property, the zeros of a quadratic equation, and the solutions of a quadratic equation are related because _____

_____

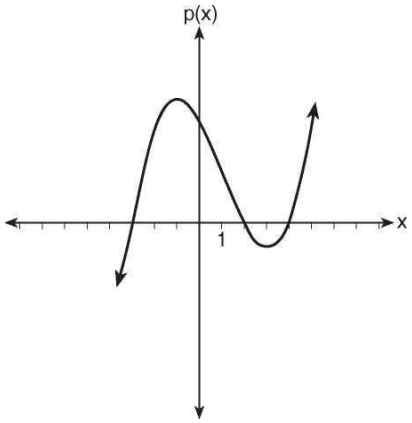
_____.

REGENTS CONNECTION

Directions: Show your work and explain the reason for your selection.

- What is the same/different about these 3 questions compared to the questions we just practiced?
- Ask yourself, "What do I know (from the work I just did) that I can use?"

1. Based on the graph below, which expression is a possible factorization of $p(x)$?



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

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

(3) $(x + 3)(x - 5)(x - 2)(x - 4)$

(4) $(x - 3)(x + 5)(x + 2)(x + 4)$

Answer choice ___ is correct because…