

Polynomial Equation BINGO

The goal of this activity is for students to practice solving basic trinomials ($a=1$) and difference of squares binomials. At the beginning of the activity give each student a blank BINGO board and something to use as markers while they play (I like to use Smarties candies but uncooked beans work well too). Students should use integers from -20 to 20 to fill in the spots on their BINGO board, one number per spot. Each number should be used only once. This way each student creates a unique BINGO card. You might want students to make their cards with a colored marker to ensure that there are no changes made during the game. These cards could be pre-made and laminated to ensure a variety.

When the cards have been created the game starts. Start with the first equation on the GAME 1 list, $x^2 - 2x - 3 = 0$. Write this equation on the board or overhead for students to solve. You might want students to work these out on a paper to turn in for points. After students have solved it they should cover up those integers on their BINGO board. Some students might have both solutions, some might just have one of the two, or some students might not have any to cover. Don't give out the answers - part of the challenge of winning is being able to solve equations correctly. Continue down the list of equations until a student has 5 in a row, horizontally, vertically, or diagonally. When a student says BINGO have the rest of the class wait to clear their card because the first student might have solved incorrectly and therefore have the wrong numbers covered. Check the card carefully. You can then continue and let a few more students BINGO or you can play "blackout" where students have to completely cover all the spots. I usually give bonus points as a reward for winning. If you have students clear their cards and start over just start at a different place on the list or use GAME 2. Before clearing the cards explain the correct answers. I usually make a transparency of the answer key. None of the solutions of each game are used more than once.

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BINGO

BINGO				
		FREE		

Polynomial Equation BINGO

GAME 1

Questions

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

2. $x^2 - 2x - 48 = 0$

3. $x^2 - 49 = 0$

4. $x^2 - 25x + 100 = 0$

5. $x^2 + 12x - 28 = 0$

6. $x^2 + 19x + 88 = 0$

7. $x^2 + 15x + 50 = 0$

8. $x^2 - 11x - 60 = 0$

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

10. $x^2 - 10x + 24 = 0$

11. $x^2 + x - 2 = 0$

12. $x^2 + 19x + 48 = 0$

13. $x^2 + 29x + 180 = 0$

14. $x^2 + 25x + 156 = 0$

$$15. x^2 - 324 = 0$$

$$16. x^2 - 20x + 99 = 0$$

$$17. x^2 - 289 = 0$$

$$18. x^2 - 25x + 156 = 0$$

$$19. x^2 - 361 = 0$$

$$20. x^2 - 30x + 224 = 0$$

$$21. x^2 + 30x + 225 = 0$$

Polynomial Equation BINGO

GAME 1

Answer Key

1. $x^2 - 2x - 3 = 0$ $\{-1, 3\}$
2. $x^2 - 2x - 48 = 0$ $\{8, -6\}$
3. $x^2 - 49 = 0$ $\{7, -7\}$
4. $x^2 - 25x + 100 = 0$ $\{20, 5\}$
5. $x^2 + 12x - 28 = 0$ $\{2, -14\}$
6. $x^2 + 19x + 88 = 0$ $\{-11, -8\}$
7. $x^2 + 15x + 50 = 0$ $\{-5, -10\}$
8. $x^2 - 11x - 60 = 0$ $\{-4, 15\}$
9. $x^2 + 10x = 0$ $\{0, 10\}$
10. $x^2 - 10x + 24 = 0$ $\{4, 6\}$
11. $x^2 + x - 2 = 0$ $\{1, -2\}$
12. $x^2 + 19x + 48 = 0$ $\{-3, -16\}$
13. $x^2 + 29x + 180 = 0$ $\{-20, -9\}$
14. $x^2 + 25x + 156 = 0$ $\{-13, -12\}$

$$15. x^2 - 324 = 0 \quad \{-18, 18\}$$

$$16. x^2 - 20x + 99 = 0 \quad \{9, 11\}$$

$$17. x^2 - 289 = 0 \quad \{-17, 17\}$$

$$18. x^2 - 25x + 156 = 0 \quad \{12, 13\}$$

$$19. x^2 - 361 = 0 \quad \{-19, 19\}$$

$$20. x^2 - 30x + 224 = 0 \quad \{14, 16\}$$

$$21. x^2 + 30x + 225 = 0 \quad \{-15\}$$

Polynomial Equations BINGO

GAME 2

Questions

1. $x^2 + x - 20 = 0$

2. $x^2 + 14x + 24 = 0$

3. $x + 42 = x^2$

4. $x^2 + 20x + 19 = 0$

5. $x^2 = 400$

6. $x^2 + 54 = 15x$

7. $x^2 + 11x + 28 = 0$

8. $x^2 - 30x = 225$

9. $x^2 - 15x + 36 = 0$

10. $x^2 = 121$

11. $x^2 = -6x + 27$

12. $x^2 - 256 = 0$

13. $x^2 + 16x - 36 = 0$

14. $x^2 - 196 = 0$

15. $x^2 + 5x = 50$

16. $x^2 - 19x + 18 = 0$

17. $x^2 - 169 = 0$

18. $x^2 - 64 = 0$

19. $x^2 - 27x + 170 = 0$

20. $x^2 = 19x$

21. $x^2 + 34x + 289 = 0$

Polynomial Equations BINGO

GAME 2

Answers

- $x^2 + x - 20 = 0$ {4, -5}
- $x^2 + 14x + 24 = 0$ {-2, -12}
- $x + 42 = x^2$ {-6, 7}
- $x^2 + 20x + 19 = 0$ {-1, -19}
- $x^2 = 400$ {-20, 20}
- $x^2 + 54 = 15x$ {6, 9}
- $x^2 + 11x + 28 = 0$ {-4, -7}
- $x^2 - 30x = 225$ {15}
- $x^2 - 15x + 36 = 0$ {3, 12}
- $x^2 = 121$ {11, -11}
- $x^2 = -6x + 27$ {3, -9}
- $x^2 - 256 = 0$ {16, -16}
- $x^2 + 16x - 36 = 0$ {2, -18}
- $x^2 - 196 = 0$ {14, -14}

15. $x^2 + 5x = 50$ $\{10, 5\}$
16. $x^2 - 19x + 18 = 0$ $\{1, 18\}$
17. $x^2 - 169 = 0$ $\{-13, 13\}$
18. $x^2 - 64 = 0$ $\{-8, 8\}$
19. $x^2 - 27x + 170 = 0$ $\{10, 17\}$
20. $x^2 = 19x$ $\{0, 19\}$
21. $x^2 + 34x + 289 = 0$ $\{-17\}$