

Grab a Bell Ringer!

Monday 10/1

Give three values of b that makes the polynomial factorable.

1. $x^2 + bx - 20$

$-1, -8, 8, 1,$
 $-19, 19$

~~$\begin{array}{r} -20 \\ +5 \quad -4 \\ +1 \end{array}$~~

2. $x^2 + bx + 24$

$\pm 10, \pm 1,$
 $\pm 25, \pm 4,$

~~$\begin{array}{r} 24 \\ -1 \quad -24 \\ 2 \quad 12 \\ -3 \quad -8 \\ 6 \quad 4 \end{array}$~~

Correct yellow ws

SMII

Name: _____

Discriminant and Quadratic Formula

Hour: _____

Find the discriminant of each quadratic equation then state the number and type of solutions.

1) $-k^2 + 2k + 3 = 0$

2) $9x^2 - 1 + 12 = 0$

$$(-1)^2 - 4(9)(12)$$

$$ax^2 + bx + c = 0$$

3) $-4n^2 - 12n - 9 = 0$

4) $4p^2 + 6p + 7 = 11$

$$b^2 - 4ac$$

$$4p^2 + 6p - 4 = 0$$

$$\begin{aligned} a &= 4 \\ b &= 6 \\ c &= -4 \end{aligned}$$

$$b^2 - 4(4)(-4)$$

$$a=10, b=0, c=-8$$

$= 100$, two real solutions

Solve each equation with the quadratic formula.

5) $10n^2 - 8 = 0$

6) $4x^2 + 2x - 110 = 0$

$$10n^2 + 0n - 8 = 0$$

$$-0 \pm \sqrt{(0)^2 - 4(10)(-8)}$$

$$\sqrt{320} = 4 \cdot 2\sqrt{5} = 8\sqrt{5}$$

$$\frac{\pm \sqrt{320}}{2(10)} = \pm \frac{8\sqrt{5}}{20} = \pm \frac{2\sqrt{5}}{5}$$

$$x = \frac{2\sqrt{5}}{5} \quad x = \frac{-2\sqrt{5}}{5}$$

7) $8x^2 + 12x - 9 = 0$

8) $2x^2 - 5x - 12 = 5$

Week 5-6

Fri	3.4 ws (green)	Tues 9/24
M-T 9/23-24	3.5A ws (blue)	THurs 9/26
Wed 9/25	Yellow 1/2 sheet	Mon 10/1
Thurs 9/26	3.7B ws (pink)	Wed 10/3

Pull out pink ws from Thursday

due Wednesday

Name: _____ Hour: _____

Sec. 3.7B: Solving Quadratics Review

Solve using the method of your choice. Show all of your work.

1. $5x^2 - 2x - 3 = 0$

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

3. $3x^2 - 9x - 54 = 0$

4. $x^2 - x = 12$

5. $x^2 + 12x + 36 = 5$

6. $x^2 - 11x + 24 = 0$

7. $x^2 + 15x + 24 = -32$

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

9. $12x^2 = -4x$

10. $(2x+1)(x-3) = 0$

11. $(x+5)^2 - 12 = 0$

12. $x^2 + 3x = 14$

13. $x^2 - 8x = -16$

14. $4x^2 + 8 = -3x$

15. $6(x-4)^2 + 8 = 20$

16. $6x^2 - 54 = 0$

17. $3x^2 + 7x - 24 = -13x$

18. $7x^2 - 10 = 25$

19. $25x^2 = 121$

20. $2x^2 + 7x - 4 = 0$