7) An arrow is shot into the air. A function representing the relationship between the number of seconds it is in the air, t, and the height of the arrow in meters, h, is given by: $h(t) = -4.9t^2 + 29.4t + 2.5$ How long does it take for the arrow to hit the ground? Round your answer to the nearest tenth.

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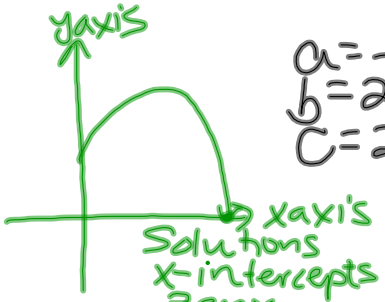

$a = -4.9$
$b = 29.4$
$c = 2.5$

$x = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$

$b^2 - 4ac : 913.36$

$x = \frac{-(29.4) \pm \sqrt{913.36}}{2(-4.9)}$

$x = \frac{-29.4 + \sqrt{913.36}}{-9.8}$

$x = -0.08$

Can't have negative time

$x = \frac{-29.4 - \sqrt{913.36}}{-9.8}$

$x = 6.08$

$x = 6.1$ sec

NAME _____

B	i	n	G	O
			2	
6	1	FREE	7	
5		3		4
	10	9	~~8~~	

Answer Bank

1. $x = \frac{4 \pm 4\sqrt{5}}{5}$
2. $x = \frac{-2 \pm i\sqrt{20}}{2}$
3. $x = \frac{-1 \pm i\sqrt{5}}{1}$
4. $x = \frac{14 \pm \sqrt{5}}{2}$
5. $x = \frac{2 \pm \sqrt{1}}{2}$
6. $x = \frac{-5 \pm 9}{2}$
7. $x = -2, 7$
8. $x = \frac{5 \pm 9}{2}$
9. $x = \frac{4 \pm \sqrt{-80}}{6}$
10. $x = \frac{-2 \pm 2i\sqrt{5}}{3}$
11. $x = 1$
12. $x = \frac{2 \pm 2\sqrt{2}}{1}$
13. $x = \frac{-12 \pm \sqrt{-416}}{8}$
14. $x = \frac{-3}{2}$
15. $x = \frac{7 \pm \sqrt{37}}{6}$
16. $x = \frac{-2 \pm \sqrt{1}}{2}$
17. $x = \frac{1 \pm \sqrt{2}}{1}$
18. $x = -1$
19. $x = \frac{i}{1}$
20. $x = \pm\frac{\sqrt{3}}{2}$
21. $x = \frac{-3 \pm \sqrt{2}}{1}$
22. $x = \frac{-6 \pm 4\sqrt{6}}{2}$
23. $x = \frac{4 \pm 6\sqrt{6}}{2}$
24. $x = -\frac{1}{2} \pm i\sqrt{2}$

April 13, 2015

Find the solutions to the quadratic equation. Cross out the solution that you think is correct on your bingo board.

1. $2x^2 + 12 = -4x$
2. $c^2 - 14 = 5c$
3. $x^2 - 2x + 1 = 0$
4. $3b^2 + 4b + 8 = 0$
5. $4x^2 + 12x + 9 = 0$
6. $q^2 - 2q - 1 = 0$
7. $m^2 + 4 = 3$
8. $3t^2 + 7t + 4 = 0$
9. $7 = -6x - x^2$
10. $4z^2 + 9 = -4z$

$x = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$

$x = \frac{-(\ ) \pm \sqrt{(\ )^2-4(\ )(\ )}}{2(\ )}$

$x = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$

11. $7x^2 + 2x + 5 = 0$

-Quiz Corrections

Vertex form:

Factor form:

-Homework check off with Ms. Vang OR Mrs. Witchger

-For those that need to take a retest for the first test, please check in with Ms. Vang.