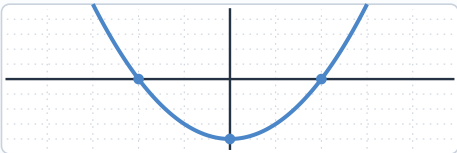
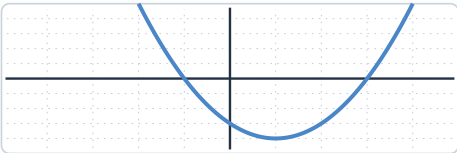
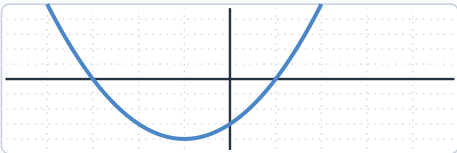
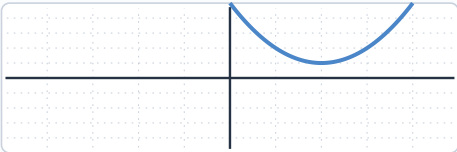


Name _____

W1

QUADRATICS SPIRAL REVIEW

Five days, five skills a day. Ten minutes each. Show your work in the box.

	SOLVE IT FAST	READ THE GRAPH	VERTEX & AXIS	FORMULA & DISCRIMINANT	WORD PROBLEM
DAY 1	Solve by factoring. $x^2 + 7x + 12 = 0$ $x^2 - 9 = 0$	 Both x-intercepts? The y-intercept?	$y = (x - 3)^2 + 2$ Vertex (____, ____) Axis: $x =$ ____	$x^2 - 6x + 5 = 0$ Discriminant = ____ How many real roots?	Slide $y = x^2$ four right and one down. Write the new equation. _____ _____
DAY 2	Solve. $x^2 - 5x + 6 = 0$ $2x^2 = 18$	 Vertex? Both roots? Up or down?	$y = x^2 - 8x + 11$ Axis: $x =$ ____ Vertex (____, ____)	Use the formula. $2x^2 + 5x - 3 = 0$	A ball: $h = -16t^2 + 32t$. When does it land? How high does it get first? _____ _____
DAY 3	Solve. $x^2 + 2x - 15 = 0$ $(x - 4)(x + 7) = 0$	 Write it in intercept form: $y = a(x - p)(x - q)$.	$y = 2(x + 1)^2 - 8$ Vertex (____, ____) Smallest y it ever hits?	$x^2 + 4x + 4 = 0$ Discriminant = ____ Roots: ____	Compare $y = -(x + 2)^2$ with $y = x^2$. Name both moves. _____ _____
DAY 4	Solve. $3x^2 - 12x = 0$ $x^2 = 49$	CREATE the graph of $y = x^2 - 2x - 3$. Circle the vertex. 	Rewrite in vertex form. $y = x^2 + 6x + 5$	$x^2 + x + 3 = 0$ Discriminant = ____ How many real roots?	$x^2 = 8y$ Focus (____, ____) Directrix: $y =$ ____
DAY 5	Solve. $x^2 - 10x + 25 = 0$ $5x^2 - 20 = 0$	 Vertex form? Does it ever cross the x-axis?	$y = -x^2 + 4x + 1$ Axis: $x =$ ____ Vertex (____, ____) Max or min?	$4x^2 - 4x + 1 = 0$ Solve it, then say what the discriminant told you.	A student writes: $(x - 3)(x + 2) = 6$, so $x = 9$ or $x = 4$. Fix it. _____ _____

Name _____

W2

SHOW YOUR WORK

Answers with no work are just rumours. Pick the problems that fought back.

DAY 1

DAY 2

DAY 3

DAY 4

DAY 5

MISTAKES I KEEP MAKING

Name _____

KEY

ANSWER KEY

Every answer checked for accuracy before publishing. Disagree? Text us and we will fix it.

	SOLVE IT FAST	READ THE GRAPH	VERTEX & AXIS	FORMULA & DISCRIMINANT	WORD PROBLEM
DAY 1	$x = -3, -4; x = \pm 3$	$(-2, 0)$ and $(2, 0)$; y-intercept $(0, -4)$	Vertex $(3, 2)$; axis $x = 3$	$36 - 20 = 16 \rightarrow$ two real roots	$y = (x - 4)^2 - 1$
DAY 2	$x = 2, 3; x = \pm 3$	Vertex $(1, -4)$; roots $x = -1$ and 3 ; opens up	Axis $x = 4$; vertex $(4, -5)$	Disc. $49 \rightarrow x = 1/2$ and $x = -3$	Lands at $t = 2$ s; peak 16 ft at $t = 1$ s
DAY 3	$x = 3, -5; x = 4, -7$	$y = (x + 3)(x - 1)$, so $a = 1$	Vertex $(-1, -8)$; minimum -8	Disc. $0 \rightarrow$ one double root, $x = -2$	Flipped over the x-axis, then 2 left
DAY 4	$x = 0, 4; x = \pm 7$	Vertex $(1, -4)$; x-int. -1 and 3 ; y-int. -3	$y = (x + 3)^2 - 4$; vertex $(-3, -4)$	$1 - 12 = -11 \rightarrow$ no real roots	Focus $(0, 2)$; directrix $y = -2$
DAY 5	$x = 5$ (double); $x = \pm 2$	$y = (x - 2)^2 + 1$; no — vertex sits above the axis	Axis $x = 2$; vertex $(2, 5)$; maximum	Disc. $0 \rightarrow x = 1/2$, a double root	Set it to zero: $x^2 - x - 12 = 0 \rightarrow x = 4, -3$

Problems are prepared from previous class notes and assigned homework, then checked for accuracy before publishing.

More free quadratics practice: burketutoringinfremont.com - in-home tutoring in Fremont, Newark and Union City

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