A

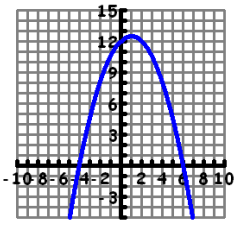
Right 2, Up 7, stretched vertically by 3

Factor Completely
$20x^2 - 11x - 3$

B

$$\frac{-3 \pm \sqrt{3}}{2}$$

Write equation of the quadratic shown in standard form. (Vertex is (1, 12.5)



C

2 real rational

Describe how the graph of $y = 3(x-2)^2 + 7$ is changed from the parent graph $y = x^2$.

D

$$\frac{3 \pm \sqrt{33}}{6}$$

Graph $y = x^2 - 6x - 7$.

Tell the vertex, x-intercepts, y-intercept, and axis of symmetry.

E

$y = -1.5x^2 - 3x + 12$

Two toy rockets are shot upward from ground level.

Rocket A

Time (seconds)	0	1	2	3	4	9	13
Height (feet)	0	256	480	672	832	1152	832

Rocket B
$y = -16x^2 + 250x$

For how many seconds is the rocket that travels the farthest in the air?

F

37.5, 75

Solve by factoring
$6x^2 = 5x - 1$

G

2 imaginary

Using the formula $h(t) = 160t - 16t^2$ where h(t) is the height of a ball in feet and t is the time in seconds.

After how many seconds does the ball reach its highest height?

H

3.25

Describe the type and number of solutions of $3x^2 + 4x = -5$.

I

$\sqrt{15}, -\sqrt{15}$

Describe the type and number of solutions of $3x^2 + 2 = 5x$.

J

1156

Find the exact values of the solutions

$3x^2 = 3x + 2$

K

Left 2, Down 7, Compressed vertically by 1/3

Solve
$-2x^2 + 3x = 1$

L

4(x+7)(x-4)

Two toy rockets are shot upward from ground level.

Rocket A

Time (seconds)	0	1	2	3	4	9	13
Height (feet)	0	256	480	672	832	1152	832

Rocket B
$Y = -16x^2 + 250x$

How many feet high does the highest rocket travel?

M 17

Factor completely
$4x^2 + 12x - 112$

N $\frac{1}{2}$, 1

Give the exact answer(s) for the solutions of
$2x^2 = -6x - 3$

O $(5x+1)(4x-3)$

John is planting a garden against one side of his house. He has 150 feet of fencing to use to keep animals out of the garden. Find the dimensions that would maximize the area of the garden.

P 1/3, 1/2

Describe how the graph of $y = 1/3(x+2)^2 - 7$ is changed from the parent graph $y = x^2$.

Q

Vertex (3, -16),
X-intercepts
(7, 0), (-1, 0)
Y-intercept (0, -7)
A.o.S. X = 3

Solve $5x^2 - 75 = 0$.

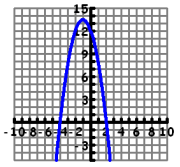
R

Vertex (1, 12),
X-intercepts
(3, 0), (-1, 0)
Y-intercept (0, -9)
A.o.S. X = 1

A skating rink manager finds the revenue y based on an hourly fee x for skating is represented by the function $y = -480x^2 + 3120x$. What hourly fee will produce maximum revenues?

S 5

Write equation of the quadratic shown in standard form. (Vertex is (-1, 13.5)



T $y = -\frac{1}{2}x^2 + x + 12$

Graph $y = -3x^2 + 6x + 9$.

**Tell the vertex,
x-intercepts,
y-intercept,
and axis of symmetry.**

A, O, F, P K, N, B, T, R, H, G, S, E, M, L, J, D, Q, I, C