Day 10 Quiz Algebra 2 A - Quadratic Equations and Inequalities
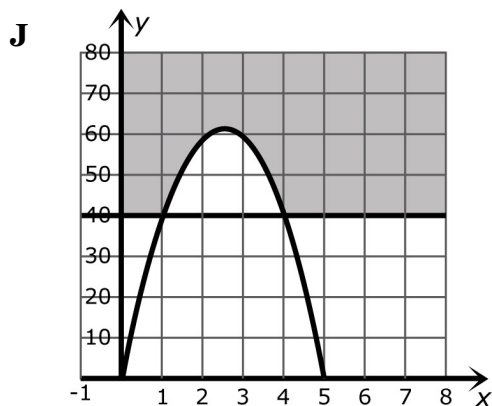
1 Which ordered pair is not a solution to the inequality $y \geq 2x^2 - 4x + 2$?

    A   (1, 0)

    B   (0, 3)

    C   (2, 5)

    D   (−1, 6)

2 The height in meters of a rocket launched from the ground after t seconds is modeled by $h(t) = -9.8t^2 + 49t$. Which graph represents the interval of time when the rocket will be higher than 40 meters?

F

G

H

J

GO ON
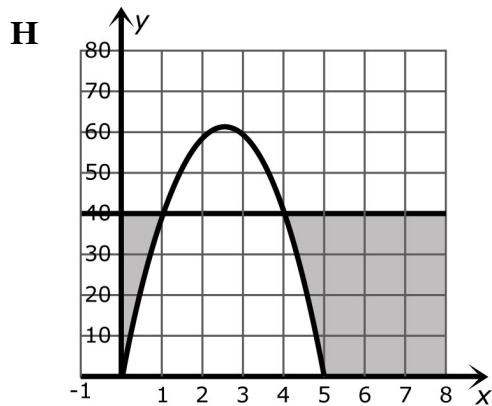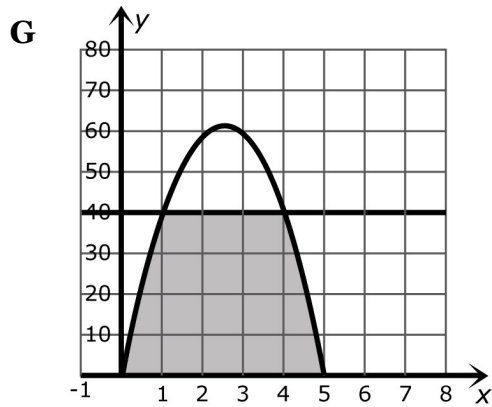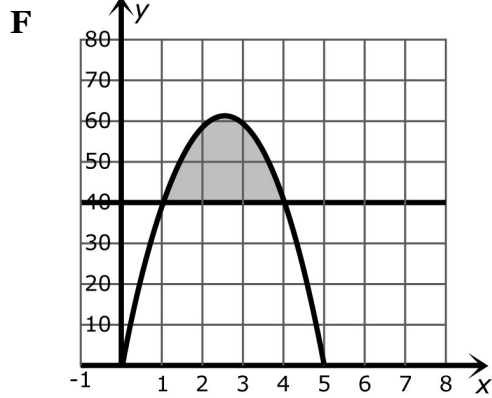
3 Some selected solutions of $y = -3x^2 + 7x$ are given in the table below.

x	y = -3x^2+7x	x	y = -3x^2+7x
-5	-110	0	0
-4	-76	1	4
-3	-48	2	2
-2	-26	3	-6
-1	-10	4	-20

What is the solution set of the inequality $-3x^2 + 7x \leq 0$?

A $0 \leq x \leq 2$

B $x \leq 0, x \geq 3$

C $x \leq -1, x \geq 3$

D $x \leq 0, x \geq \dfrac{7}{3}$

4 What is the solution set of the inequality $x^2 - 4x - 5 < 0$?

F $\{x \mid x > 1 \text{ or } x < -5\}$

G $\{x \mid -5 < x < 1\}$

H $\{x \mid x > 5 \text{ or } x < -1\}$

J $\{x \mid -1 < x < 5\}$

5 What is the solution set of the inequality $x^2 + 2x - 15 < 0$?

A $x < -5 \text{ or } x > 3$

B $-3 < x < 5$

C $-5 < x < 3$

D $x < -3 \text{ or } x > 5$

6 What is the solution set of the inequality $x^2 - x > 20$?

    F $\{x \mid x > 5 \text{ or } x < -4\}$

    G $\{x \mid x > 0\}$

    H $\{x \mid -4 < x < 5\}$

    J $\{x \mid x > 5\}$

7 What is the solution set of the inequality $x^2 - 3x - 10 > 0$?

    A $\{x \mid x < -2 \text{ or } x > 5\}$

    B $\{x \mid -5 < x < 2\}$

    C $\{x \mid -2 < x < 5\}$

    D $\{x \mid x < -5 \text{ or } x > 2\}$

8 The height in meters of a rocket launched from the ground after t seconds is modeled by $h(t) = -9.8r^2 + 49t$. Which graph represents the interval of time when the rocket will be higher than 40 meters?

F

G

H

J

BE SURE YOU HAVE RECORDED ALL OF YOUR ANSWERS
ON YOUR ANSWER DOCUMENT

STOP