

Name: _____ Date: _____ Class: _____

SECTION 5-6 QUIZ A

Identify the number of solutions and its type for the equation $x^2 - 7x + 3 = 0$.

- 1 real
 - 1 nonreal complex
 - 2 real
 - 2 nonreal complex
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Identify the number of solutions and its type for the equation $3x^2 - 5x + 19 = 0$.

- 1 real
 - 1 nonreal complex
 - 2 real
 - 2 nonreal complex
-

Identify the zeros of the function $f(x) = 2x^2 - 2x + 13$ using the Quadratic Formula.

- $\frac{1}{2} \pm \frac{5}{2}$
 - $\frac{1}{2} \pm \frac{\sqrt{27}}{2}$
 - $\frac{1}{2} \pm i\frac{5}{2}$
 - $\frac{1}{2} \pm i\frac{\sqrt{27}}{2}$
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Identify the zeros of the function $f(x) = 3x^2 - 12x + 7$ using the Quadratic Formula.

- $-2 \pm \frac{\sqrt{15}}{3}$
- $2 \pm \frac{\sqrt{15}}{3}$
- $-2 \pm i\frac{\sqrt{15}}{3}$
- $2 \pm i\frac{\sqrt{15}}{3}$

*****EXTRA CREDIT*****

An airplane pilot is fertilizing a field. The height y in feet of the fertilizer t seconds after it is dropped is modeled by $y(t) = -16t^2 - 3t + 300$. The horizontal distance x in feet between the fertilizer and its dropping point is modeled by $x(t) = 85t$. At approximately what horizontal distance from the field should the pilot start dropping the fertilizer?

- 531 ft
 - 360 ft
 - 300 ft
 - 272 ft
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