Algebra I Practice A.REI.B.4: Solving Quadratics 5 www.jmap.org

Solve:

1.
$$\frac{x^2}{4} + \frac{x}{4} = \frac{3}{2}$$

[A]
$$\frac{1}{3}$$
, $-\frac{1}{2}$ [B] 3, -2

[B]
$$3, -2$$

[C]
$$-3$$
, 2 [D] $-\frac{1}{3}$, $\frac{1}{2}$

$$2. \quad \frac{x^2}{4} - \frac{3x}{2} = -\frac{5}{4}$$

[B]
$$\frac{1}{5}$$
, 1

$$[C] -5, -1$$

[C]
$$-5$$
, -1 [D] $-\frac{1}{5}$, -1

$$3. \quad \frac{x^2}{4} - \frac{x}{1} = \frac{5}{4}$$

[A]
$$\frac{1}{5}$$
, -1 [B] $-\frac{1}{5}$, 1

[B]
$$-\frac{1}{5}$$
,

[D]
$$5, -1$$

4.
$$\frac{x^2}{2} - \frac{7x}{4} = -\frac{3}{2}$$

5.
$$\frac{x^2}{2} + \frac{x}{4} = \frac{3}{2}$$

NAME:

$$6. \quad \frac{x^2}{4} - \frac{3x}{2} = -\frac{5}{4}$$

7.
$$\frac{x^2}{4} - \frac{x}{2} = \frac{3}{4}$$

$$8. \quad \frac{x^2}{4} - \frac{5x}{4} = -\frac{3}{2}$$

9. For which value of x is f(x) = -10 if $f(x) = -4x^2 + 3x$?

$$[D] -2$$

10. A rock is thrown from the top of a tall building. The distance, in feet, between the rock and the ground t seconds after it is thrown is given by $d = -16t^2 - 2t + 763$. How long after the rock is thrown is it 430 feet from the ground?

[A]
$$\frac{37}{8}$$
 sec

[A]
$$\frac{37}{8}$$
 sec [B] $\frac{11}{2}$ sec

[C]
$$\frac{45}{8}$$
 sec [D] $\frac{9}{2}$ sec

[D]
$$\frac{9}{2}$$
 sec

- [1] C
- [2] <u>A</u>
- [3] D
- $[4] \frac{3}{2}, 2$
- $[5] \frac{3}{2}, -2$
- [6] 5, 1
- [7] 3, -1
- [8] 3, 2
- [9] E
- [10] D