Algebra 1B- Mrs. Tilus
Unit 9- Day #13: The Discriminant Worksheet

Name: Key

Find the discriminant and the amount of real-number solutions of each equation . $b^2 - 4ac$

1. $6x^2 - 2x - 3 = 0$

D= 76

2 real Solutions

2. $-4x^2 - 4x + 5 = 0$

D= 96

2 real Solutions

3. $-2x^2 - x - 1 = 0$

D= -7

No real Solutions

4. $5x^2 + x - 2 = 0$

D= 41

2 real Solutions

5. $x^2 + 5x = -2$

D= 17

2 real Solutions

6. $2x^2 - 4 = -5x$

D= 57

2 real Solutions

7. $9x^2 - 3x - 8 = -10$

D= -63

No real Solutions

8. $-2x^2 - 8x - 14 = -6$

D= 0

1 real Solution

9. $-x^2 - 9 = 6x$

D=0

1 real Solution

10. $4x^2 - 8x + 4 = 0$

D=0

1 real Solution

11. $8x^2 - 6x + 3 = 5x^2$

D=0

1 real Solutions

12. $-4x^2 - 4x = 6$

D=-80

No real Solutions

Solve by using the quadratic formula. $x = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$

13. $-6x^2 + 7x + 3 = 0$

$X = 1.5$, $X = -0.3\overline{}$

OR

$X = 3/2$, $X = -1/3$

14. $4x^2 + 8x + 4 = 0$

$X = -1$, $X = -1$