Practice 11.2

Name(s)_____

Find the discriminant and use that to determine the number and type (real or complex) of solutions of the equation.

1) $x^2 + 5x - 6 = 0$ Discriminant _____

Number of Solutions_____

Type of solution_____

---

2) $x^2 - 2x + 1 = 0$ Discriminant _____

Number of Solutions_____

Type of solution_____

---

3) $x^2 - 3x + 4 = 0$ Discriminant _____

Number of Solutions_____

Type of solution_____

Use the quadratic formula to solve the equation.

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

5) $4x^2 + 6x + 1 = 0$

6) $\frac{z^2}{-4} = \frac{z}{7} + \frac{3}{-28}$

7) $x(x - 10) = 3$

8) $6x^2 + 22x = -18$

1) two real solutions
2) one real solution
3) two complex but not real solutions
4) 4, 1
5) $\frac{-3 - \sqrt{5}}{4}, \frac{-3 + \sqrt{5}}{4}$
6) $-1, \frac{3}{7}$
7) $5 - 2\sqrt{7}, 5 + 2\sqrt{7}$
8) $\frac{-11 - \sqrt{13}}{6}, \frac{-11 + \sqrt{13}}{6}$