**Algebra 2 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**4.6 Preview**

**quadratic formula: x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solve the following quadratic equations using the quadratic formula.**

|  |
| --- |
| **1.** $2x^{2}+2x-12=0 $ |
| **2.** $4x^{2}+8x+7=4$ |
| **3.** $2x^{2}+9x=-7$ |

**Factoring Review**

|  |  |
| --- | --- |
| **1.** $49x^{2}-16$ | **2.** $12x^{2}-75$ |
| **3.** $14x^{3}-28x^{2}+21x$ | **4.** $x^{2}-x-30$ |
| **5.** $x^{2}-2x-15$ | **6.** $2x^{2}+13x+6$ |
| **7.** $7x^{2}-44x+12$ | **8.** $3x^{2}-x-14$ |

**Key:**

1. **{2, -3}**
2. **{-1/2, -3/2}**
3. **{-1, -7/2}**

**Factoring Review:**

1. **(7x – 4)(7x + 4)**
2. **3(2x – 5)(2x + 5)**
3. **7x(2x2 – 4x + 3)**
4. **(x + 5)(x – 6)**
5. **(x – 5)(x + 3)**
6. **(2x + 1)(x + 6)**
7. **(7x + 2)(x + 6)**
8. **(3x – 7)(x + 2)**