

## Today's Plan:

**Learning Target (standard):** I will practice factoring methods and solve equations by factoring.

**Students will:** Complete practice problems over previous concepts at the boards, put up homework problems on the board and make necessary corrections to their own work, and complete practice problems.

**Teacher will:** Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide examples of test problems.

**Assessment:** Board work, homework check and homework assignment

**Differentiation:** Students will work at the board, go over and correct homework at their seats, and actively engage in practice problems.

### Factoring Review #1-12

**\* Test today! \***

1)  $(7n^2 + 1)(n + 1)$

2)  $6(3p^2 + 5)(7p + 6)$

3)  $4n(5n + 1)(n + 1)$

4)  $(3v - 8)(3v + 8)$

5)  $5(2k + 5)(5k + 6)$

6)  $(x + 3)(8x - 9)$

7)  $(a^2 - 5)(a^2 + 3)$

8)  $(2a^2 + 9)(5a^2 - 1)$

9)  $(4x + 1)^2$

10)  $(2x + 3)(4x^2 - 6x + 9)$

11)  $2(a - 3)(a^2 + 3a + 9)$

12)  $b = -6, \frac{8}{5}$

Solve:

$$-4a^2 + 31a = -8$$

$$0 = 4a^2 - 31a - 8$$

$$\begin{array}{c} 32 \\ \wedge \\ 1 \quad -32 = -31 \end{array}$$

$$0 = \underline{4a^2 + a} - 32a - 8$$

$$0 = a(4a+1) - 8(4a+1)$$

$$0 = (4a+1)(a-8)$$

$$a = -\frac{1}{4}, 8$$

Factor Completely:

$$x^8 - 10x^4 + 9$$

$$\begin{array}{c} 9 \\ \wedge \\ -9 \quad + \quad -1 = -10 \end{array}$$

$$\underline{x^8 - 9x^4} - x^4 + 9$$

$$x^4(x^4 - 9) - 1(x^4 - 9)$$

$$(x^4 - 9)(x^4 - 1)$$

$$(x^2 + 3)(x^2 - 3)(x^2 + 1)(x^2 - 1)$$

$$(x^2 + 3)(x^2 - 3)(x^2 + 1)(x + 1)(x - 1)$$