

Name: _____

Algebra II Honors

Solving Polynomial and Other Equations

Solve each equation.

1. $3c = 9 - 26c^{\frac{1}{2}}$

2. $16(a+5)^2 - 5 = 20$

3. $\sqrt{2k+7} - \sqrt{k+3} = 5$

4. $\sqrt{3m-6} - \sqrt{m^2-2m} = 0$

5. $w^4 - 42w^2 + 216 = 0$

6. $(x+3)^{\frac{1}{2}} - 4(x+3)^{\frac{1}{4}} = -4$

7. $4x^3(2x-1)^{\frac{3}{2}} - 8x^2(2x-1)^{\frac{1}{2}}$

8. $(c^2+5)^2 - 8(c^2+5) - 48 = 0$

$$9. 14y\left(2 + \frac{y}{2}\right) = y(y-1) - 20$$

$$10. 3x^5 - 3x^3 - 36x = 0$$

$$11. 8y^4 - 40y^3 + y = 5$$