

Unit 10.5 Other Factoring Methods

1. Factor using substitution

a. $(x - 11)^2 + 5(x - 11) - 24$

b. $(x^2 + 8) - 5(x^2 + 8) + 4$

c. $e^{2x} + 4e^x - 12$

d. $10^{2x} - 4(10^x) + 3$

e. $40x^4 + 114x^2 + 80$

2. Factor using “completing the square”

a. $4x^2 + 4x - 5$

b. $3x^2 + 6x + 18$

3. Solve each equation using the quadratic formula

a. $m^2 - 5m - 14 = 0$

b. $4b^2 + 8b + 7 = 4$

c. $k^2 - 31 - 2k = -6 - 3k^2 - 2k$

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