2.1
1/1

Quadratic Equations.

Standard form $ax^2 + bx + c = 0$. , $a \neq 0$.

Ex 1: $(x+2)(x-5) = 7$

Three methods for solving:

[1] Factoring. $\boxed{x^2 + 5x = 21 + x}$

Ex 2: $25x^2 - 16 = 0 \Rightarrow (5x+4)(5x-4) = 0$

Ex 3: $49t^2 + 14t + 1 = 0 \Rightarrow (7t+1)^2 = 0$

Ex 4: $(x-3)(1-x) = 1$.

Ex 5: $\dfrac{x}{x-1} = 2x + \dfrac{1}{x-1}$

[2] Quadratic Formula.

Ex 6: ~~$x^2 + 4x + 4 = 0$~~ $x^2 - 6x + 7 = 0$

Ex 7: $10y^2 - y - 65 = 0$

Ex 8: $z^2 + 121 = 0$.

Ex 9: $(x+8)^2 + 3(x+8) + 2 = 0$

[3] Solve by Graphing

Ex 10: $49x^2 + 28x + 4 = 0$

Ex 11: $6.8x^2 - 4.9x - 2.6 = 0$