[***http://www.math.com/students/calculators/source/quadratic.htm***](http://www.math.com/students/calculators/source/quadratic.htm)

**Quadratic Equation STANDARD FORM: Ax2 + Bx + C = 0**

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| --- | --- |
| ***By Factoring: 5m2 - 25m – 70***  ***(5m + 10) (m – 7) = 0 (5m + 10) = 0 or (m – 7) = 0***  ***(5m + 10) = 0 5m = -10 m = -***  ***(m – 7) = 0 = 7*** | ***Factor out a “5”***  ***5(m2 – 5m – 14)***  ***5(m – 7)(m + 2)***  ***= 7 or m = -2*** |
| ***Calculator Formula:***  *(-(b)+(b^2-4\*a\*c)^.5)/(2\*a)* |  |
| ***a2 – 8a = -16 so, a2 – 8a + 16 = 0***  ***(a - 4) (a – 4) = 0*** | ***a2 + 5a = -6 so, a2 + 5a + 6 = 0***  ***(a + 3) (a + 2)***  *= =* |

***Try This: Put back into Standard Form and prove using the Quadratic Equation***

|  |  |  |
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| 1. *1) (b – 3) (b + 4) = 0* | *2)(c – 7) (c – 3) = 0* | *3)(4k + 1) (3k – 9) = 0* |

***Try This: Solve using the Quadratic Equation***

|  |  |  |
| --- | --- | --- |
| *4)a2 – a – 6 = 0* | *5)m2 – m = 56* | ***6)*** *b2 – 3b = 28* |

***Try This: Find the roots: and also prove with the Quadratic Equation***

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| ***7)****a2 + 6a + 9* | ***8)****a2 + 4a* | ***9)****25a2 – 16* |