

We need to look at our options and make connections about solving equations.  
There is always more than one way to find solutions.

| Solved Algebraically              | Solved by finding Intersections | Solved by finding Zeroes |
|-----------------------------------|---------------------------------|--------------------------|
| 1. $7x + 2 = 3x + 94$             |                                 |                          |
| 2. $ 2 + 5x  = 3$                 |                                 |                          |
| 3. $2x^2 - 7x = 15$               |                                 |                          |
| 4. $4x^2 = -x + 3$                |                                 |                          |
| 5. $2^x + 7 = 52$                 |                                 |                          |
| 6. $8(x - 2)^3 + 1 = 89$          |                                 |                          |
| 7. $\sqrt{x + 2} = 4\sqrt{x + 1}$ |                                 |                          |
| 8. $\sqrt{4 - 2t - t^2} = t + 2$  |                                 |                          |

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| Solved Algebraically                                          | Solved by finding Intersections | Solved by finding Zeroes |
|---------------------------------------------------------------|---------------------------------|--------------------------|
| 1. $7x + 2 = 3x + 94$<br><br>$x = 23$                         |                                 |                          |
| 2. $ 2 + 5x  = 3$<br><br>$x = \frac{1}{5}, -1$                |                                 |                          |
| 3. $2x^2 - 7x = 15$<br><br>$x = -1.5, 5$                      |                                 |                          |
| 4. $4x^2 = -x + 3$<br><br>$x = .75, -1$                       |                                 |                          |
| 5. $2^x + 7 = 52$<br><br>$x \approx 5.49$                     |                                 |                          |
| 6. $8(x - 2)^3 + 1 = 89$<br><br>$x \approx 4.22$              |                                 |                          |
| 7. $\sqrt{x + 2} = 4\sqrt{x + 1}$<br><br>$x = -\frac{14}{15}$ |                                 |                          |
| 8. $\sqrt{4 - 2t - t^2} = t + 2$<br><br>$x = 0$               |                                 |                          |