Algebra Quadratic Equations Test Review

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| 1. /Users/reneebyron/Desktop/Screen Shot 2018-02-11 at 7.34.58 PM.pngName the solution(s) to the system: | | 1. Solve the system:   f(x) = | |
| 1. Use Quadratic Formula. Leave answer in simplest radical form   2x2 + 8x – 2 = x2 + 2x – 8 | | 1. Use Quadratic Formula. Leave answer in simplest radical form   x2 + 2x = -8 | |
| 1. A child tosses a ball and it follows a path of h = -16t2 + 10t + 2. How long is the ball in the air? (QF – round to the nearest tenth) | | 1. A ball follows the path of   h = -16t2 + 40t. Will it ever reach 25 feet? 28 feet? Explain. | |
| 1. The product of two consecutive integers is 8 more than 3 times the smaller integer. Find the integers. | | 1. The product of two consecutive EVEN integers is 10 more than 11 times the smaller integer. Find the integers. | |
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| 1. Write a quadratic model.  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | X | -5 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | | Y | 0 | 14 | 24 | 30 | 32 | 30 | 24 | 14 | 0 | -18 | | | | |
| For #10-12, state the number and the nature of the roots | | | |
| 1. x2 = -8x – 16 | 1. 4x2 – 5x = 2 | | 1. 2x2 – 8x + 16 = 0 |
| For #13-15 solve by factoring. No decimals. | | | |
| 1. 8x(9x – 4) = 0 | 1. x2 + 2x = 24 | | 1. 2x2 = 5x + 3 |

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| For #16-27 Solve with square roots. Leave all answers in simplest radial form. No decimals. | | | |
| 1. x2 = 81 | 1. x2 = -64 | 1. x2 = 24 |
| 1. x2 = -45 | 1. -9x2 + 6 = 30 | 1. 5x2 – 8 = 37 |
| 1. 2(x + 3)2 = 32 | 1. 9x2 = 40 | 1. 6x2 + 18 = -78 |
| 1. 3x2 + 10 = 4 | 1. 4(x – 1)2 = -100 | 1. 9(x + 4)2 = 45 |