

Math 2 Unit 11 Worksheet 4
Quadratic Formula & Mid-Unit Review

Name: _____
Date: _____ **Per:** _____

[1-10] Solve using the Quadratic Formula. Leave answers in simplest radical form.

1. $2n^2 - 7n - 3 = 0$

2. $3m^2 = 4 - 6m$

3. $n^2 + 8n - 16 = 0$

4. $2x^2 + 3x - 7 = 0$

5. $x^2 + 3x + 5 = 0$

6. $2m^2 - 3m + 1 = 2m$

7. $p^2 - p + 2 = 2p - 5$

8. $x^2 - 9x + 20 = 14$

9. $2k^2 + 8k - 15 = -18$

10. $2x^2 + 4x + 5 = 0$

Mid-Unit Review

[11-12] Solve by completing the square. Leave answers in simplest radical form.

11. $x^2 - 8x + 12 = 7$

12. $x^2 + 10x = -5$

[13-14] a) Write the following functions in vertex form by completing the square.

b) Find the vertex.

13. $y = x^2 + 6x + 17$

14. $y = x^2 - 14x + 9$

a) Vertex Form: _____

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b) Vertex: (____, ____)

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[15-20] Simplify the following to include at most one i .

15. $(7 + 3i) + (5 - 9i)$

16. $(2 + 8i) - (12 - 3i)$

17. $(3i)(8i)$

18. $(6 + 4i)(2 - 3i)$

19. $(2i)(-5i)(3i)(7i)(i^3)$

20. $(3 - 4i) - 7(5 + i)$