Algebra 2 Name_____

Unit 1 Test Extra Practice

Simplify.

1) $2 + (1 - 4i) + (3 + 5i)$

2) $(-2 - 6i) - (5 - i) - (3i)$

3) $(8i)(5i)$

4) $(-2 + 2i)(-2 + 2i)$

5) $(6 - 5i)^2$

Solve each equation. Remember to check for extraneous solutions.

6) $9 = \sqrt{-1 - 41x}$

7) $\sqrt{50m} + 9 = 19$

8) $50 = 5\sqrt{v + 9}$

9) $3 = \sqrt{m - 9} - 1$

10) $\sqrt{\frac{v}{9}} = \sqrt{2v - 170}$

11) $\sqrt{3r - 30} = \sqrt{2r - 18}$

Solve each equation.

12) $(b - 14)^{\frac{3}{2}} = 729$

13) $3 = (2n - 31)^{\frac{1}{2}}$

14) $3645 = 5x^{\frac{3}{2}}$

Solve each equation by taking square roots.

15) $5b^2 - 8 = -3$

16) $4a^2 - 6 = 10$

17) $4x^2 + 4 = 85$

18) $x^2 - 6 = 94$

Algebra 2 Name_____

Unit 1 Test Extra Practice

Simplify.

1) $2 + (1 - 4i) + (3 + 5i)$

$6 + i$

2) $(-2 - 6i) - (5 - i) - (3i)$

$-7 - 8i$

3) $(8i)(5i)$

-40

4) $(-2 + 2i)(-2 + 2i)$

$-8i$

5) $(6 - 5i)^2$

$11 - 60i$

Solve each equation. Remember to check for extraneous solutions.

6) $9 = \sqrt{-1 - 41x}$

$\{-2\}$

7) $\sqrt{50m} + 9 = 19$

$\{2\}$

8) $50 = 5\sqrt{v + 9}$

$\{91\}$

9) $3 = \sqrt{m - 9} - 1$

$\{25\}$

10) $\sqrt{\frac{v}{9}} = \sqrt{2v - 170}$

$\{90\}$

11) $\sqrt{3r - 30} = \sqrt{2r - 18}$

$\{12\}$

Solve each equation.

12) $(b - 14)^{\frac{3}{2}} = 729$

$\{95\}$

13) $3 = (2n - 31)^{\frac{1}{2}}$

$\{20\}$

14) $3645 = 5x^{\frac{3}{2}}$

$\{81\}$

Solve each equation by taking square roots.

15) $5b^2 - 8 = -3$

$\{1, -1\}$

16) $4a^2 - 6 = 10$

$\{2, -2\}$

17) $4x^2 + 4 = 85$ $\left\{\frac{9}{2}, -\frac{9}{2}\right\}$

18) $x^2 - 6 = 94$

$\{10, -10\}$