Algebra 2

Name_____

Assignment

Date_____ Period_____

Simplify each expression.

1) $\left(7n^4 - 2n^2\right) + \left(n^4 - 8n^2\right)$

2) $\left(b^2 + 3b\right) + \left(5b - b^2\right)$

3) $\left(8x^3 + 8x^2\right) - \left(8x^2 + x\right)$

4) $\left(2n^2 - 2n^3\right) + \left(2n^3 - 5n^2\right)$

5) $\left(3n - 2n^2\right) + \left(6n^2 + n\right)$

6) $\left(5 + 3k^2\right) + \left(4 - 4k^2\right)$

7) $\left(4x^4 + 3x^3\right) + \left(6x^4 + 2x^3\right)$

8) $\left(6k^4 - 3\right) + \left(7 - 2k^4\right)$

9) $\left(-12x^4y^3 + 9x^3y^2\right) - \left(-2x^3y^2 + 11x^4y^3\right) + \left(14x^3y^2 - 4x^4y^3\right)$

10) $\left(-13ab^3 - a^2b\right) - \left(a^2b - 4ab^3\right) - \left(7a^2b - 2ab^3\right)$

11) $\left(-10m^4n^2 - 7mn^4\right) + \left(-5m^4n^2 - 3mn^4\right) + \left(-6m^4n^2 - 8mn^4\right)$

12) $\left(14y^5 - 14x^5y^4\right) + \left(3x^5y^4 + 10y^5\right) + \left(-2x^5y^4 + 2y^5\right)$

13) $\left(-x^4y^4 - 5x^2y^4\right) + \left(4x^3y^4 + 14 + 7x^4y^3\right) - \left(-6x^3y^4 - 7x^4y^4 - 4x^4y^3\right)$

14) $\left(x^2y - 13x^3y^3\right) - \left(-2x^3y^5 - 11x^2y - 12x^3y^3\right) - \left(-8x^2y - 8x^3y^5 + 9x^3y^3\right)$

15) $\left(6b + 12b^3\right) + \left(11a^3b^3 - 12b^3 - 9b\right) - \left(9a^3b^3 - 5a^2b^2 + 14b^3\right)$

16) $\left(3b^2 - 14a^5b^5\right) - \left(-3b^2 + 2ab^5 - 6a^5b^5\right) + \left(-5ab^5 - 3a^5b^5 - b^2\right)$

17) $\left(-11u^4v^2 + 9u^4v^4 - 12u^5v - 4u^2v^3\right) + \left(5u^5v + 5u^4v^2 - 4u^2v^3\right) - \left(-6u^4v^4 - 10u^4v^2 + 3u^5v\right)$

18) $\left(m^3n^3 - 6m^2n^4 - 9m^4n^3 + 3mn^2\right) + \left(4mn^2 - 6m^2n^4 - 4m^4n^3\right) - \left(-3m^4n^3 - 4m^2n^4 + 9m^3n^3\right)$

19) $\left(-11m^4n - 13mn^4 + 6m^3n^3 + m^5n^3\right) - \left(9m^3 + 13m^5n^3 + 4mn^4\right) + \left(-6m^3n^3 + 4m^4n + 5m^5n^3\right)$

20) $\left(8x^2y^4 + 11x^5y - 13y - 5x^3y^4\right) + \left(-12y^5 + 13x^3y^4 + 3y\right) - \left(-14y - 2x^3y^4 - 4y^5\right)$

Answers to Assignment (ID: 1)

1) $8n^4 - 10n^2$

2) $8b$

3) $8x^3 - x$

4) $-3n^2$

5) $4n^2 + 4n$

6) $-k^2 + 9$

7) $10x^4 + 5x^3$

8) $4k^4 + 4$

9) $-27x^4y^3 + 25x^3y^2$

10) $-7ab^3 - 9a^2b$

11) $-21m^4n^2 - 18mn^4$

12) $-13x^5y^4 + 26y^5$

13) $6x^4y^4 + 10x^3y^4 + 11x^4y^3 - 5x^2y^4 + 14$

14) $10x^3y^5 - 10x^3y^3 + 20x^2y$

15) $2a^3b^3 + 5a^2b^2 - 14b^3 - 3b$

16) $-11a^5b^5 - 7ab^5 + 5b^2$

17) $15u^4v^4 + 4u^4v^2 - 10u^5v - 8u^2v^3$

18) $-10m^4n^3 - 8m^2n^4 - 8m^3n^3 + 7mn^2$

19) $-7m^5n^3 - 17mn^4 - 7m^4n - 9m^3$

20) $10x^3y^4 + 11x^5y + 8x^2y^4 - 8y^5 + 4y$