

Algebra II Homework #11

- 1) Simplify: $-54(3x^{-3}y^2a^{-1})^{-3}(-2x^4y^{-3}a^2)^{-2}$
- 2) Simplify: $-2(5x^3 + 3x - 4) - (-2x^2 - 6 + 4x)$
- 3) Write 45.96×10^{-5} in scientific notation.
- 4) Simplify: $9^{-2} + 6^{-3}$
- 5) Simplify: $(4x^2 - 3x - 1)(6x^2 - 2x + 5)$
- 6) Simplify: $\frac{48x^2ya^3 - 81x^3y^2a + 36x^4ya^3}{54x^2y^2a^3}$
- 7) Simplify: $\frac{3x - 5 + 4x^3}{x - 2}$
- 8) Factor: $6x^3 - 78x^2 - 180x$
- 9) Simplify: $\frac{72x^3y^2a^2 - 64x^2y^3a^3 - 144x^3y^3a}{108x^3y^2a^2}$
- 10) Simplify: $\frac{-2x^2 + 1 + 4x^5}{x + 1}$
- 11) Factor: $3x^3a - 6x^2a - 144xa$
- 12) Simplify: $\frac{147xy^3a^2 + 686x^4y^3a^2 + 98x^2ya^4}{196x^3ya^3}$
- 13) Simplify: $\frac{-7x + x^4 - 3x^2}{x - 3}$
- 14) Factor: $2x^3y - 40x^2y + 192xy$
- 15) Simplify: $\frac{75x^2y^4a - 225x^5ya^3 + 350x^4y^3a^4}{155x^3y^3a^2}$
- 16) Simplify: $\frac{27x^3 + 8}{3x + 2}$

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17) Factor: $8x^2 + 40x - 48$

18) Simplify: $\frac{96x^5y^3z^2 - 80xy^3z - 216x^2y^4z^4}{144xy^4z^3}$

19) Simplify: $\frac{4x^3 - 5 + 6x^4}{x^2 - 2}$

20) Factor: $3x^3ya^2 + 45x^2ya^2 + 162xya^2$

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