

Algebra II Homework #12

- 1) Simplify:
$$\frac{84x^3ya^5 - 98x^3y^4a^2 + 56x^5y^2a^3}{126x^4y^3a^2}$$
- 2) Simplify: $-36(-3x^4y^{-5}a^{-3})^{-1}(4x^{-2}y^3a^3)^{-2}$
- 3) Simplify:
$$\frac{-7x^2 + 3x^3}{x + 4}$$
- 4) Factor: $12x^3y + 24x^2y - 288xy$
- 5) Simplify: $(6x - 7)^3$
- 6) Factor: $36x^3a + 51x^2a + 18xa$
- 7) Factor: $24x^4y + 3xy^4$
- 8) Factor: $24x^2a - 40xya + 18xa - 30ya$
- 9) Factor: $45x^3a - 78x^2ay + 24xay^2$
- 10) Factor: $32x^5a - 162xa$
- 11) Factor: $48x^2ay - 56xy^2a - 72xya^2 + 84y^2a^2$
- 12) Factor: $432x^3 + 366x^2 + 60x$
- 13) Factor: $50x^3 + 18x$
- 14) Factor: $84axy + 24x^2a - 140ya - 40ax$
- 15) Factor: $288x^5a^2y - 384x^4a^2y^2 - 72x^3a^2y^3$
- 16) Factor: $54x^5a - 250x^2a$
- 17) Factor: $12xy - 6x - 2y + 1$
- 18) Factor: $144x^3 - 204x^2 + 72x$
- 19) Factor: $343x^3 - 63x$
- 20) Factor: $45axy^2 + 30axy + 36ay^2 + 24ay$

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