Name : _____

Factors: Algebraic Identities

Factorize each expression using algebraic identities.

1) $3a^2b^3 - 27a^2b^2 + 81a^2b - 81a^2$

2) $g^3 - 12g^2h + 48gh^2 - 64h^3$

3) $q^3 + \dfrac{3q^2}{r} + \dfrac{3q}{r}$ ... $441tu^2v^2 + 343u^3v^3$

5) $s^4 + 24s^3t + 1$ ... $- 250$

7) $8m^3n^3 - 12m$ ... $+ 18vw^2 + w^3$

9) $\dfrac{64}{x^3} - \dfrac{48y}{x} + 12xy^2 - x^3y^3$

10) $6s^3 + 72s^2 + 288s + 384$