

## Raising a Power to a Power

**Simplify. Your answer should contain only positive exponents.**

$$1) (2u^4v^3)^3$$
$$8u^{12}v^9$$

$$2) (3v^2)^2$$
$$9v^4$$

$$3) (2a^3b^4)^4$$
$$16a^{12}b^{16}$$

$$4) (x^3y^3)^4$$
$$x^{12}y^{12}$$

$$5) (4y^4)^2$$
$$16y^8$$

$$6) (4m^2)^4$$
$$256m^8$$

$$7) (2x^2y^2)^3$$
$$8x^6y^6$$

$$8) (2x^3y^3)^3$$
$$8x^9y^9$$