

Exponents and Multiplication

Simplify. Your answer should contain only positive exponents.

1) $4^2 \cdot 4^2$

4^4

2) $4 \cdot 4^2$

4^3

3) $3^2 \cdot 3^2$

3^4

4) $2 \cdot 2^2 \cdot 2^2$

2^5

5) $2n^4 \cdot 5n^4$

$10n^8$

6) $6r \cdot 5r^2$

$30r^3$

7) $2n^4 \cdot 6n^4$

$12n^8$

8) $6k^2 \cdot k$

$6k^3$

9) $5b^2 \cdot 8b$

$40b^3$

10) $4x^2 \cdot 3x$

$12x^3$

11) $6x \cdot 2x^2$

$12x^3$

12) $6x \cdot 6x^3$

$36x^4$

$$13) 7v^3 \cdot 10u^3v^5 \cdot 8uv^3$$
$$560v^{11}u^4$$

$$14) 9xy^2 \cdot 9x^5y^2$$
$$81x^6y^4$$

$$15) 6m^3n^3 \cdot 8m^2n^3$$
$$48m^5n^6$$

$$16) 6x^2 \cdot 6x^3y^4$$
$$36x^5y^4$$

$$17) 7u^2v^5 \cdot 9uv^3$$
$$63u^3v^8$$

$$18) uv \cdot 4uv^5$$
$$4u^2v^6$$

$$19) 10xy^3 \cdot 8x^5y^3$$
$$80x^6y^6$$

$$20) 3u^4v^5 \cdot 7u^2v^3$$
$$21u^6v^8$$

$$21) (2x^2)^2$$
$$4x^4$$

$$22) (p^4)^4$$
$$p^{16}$$

$$23) (k^3)^4$$
$$k^{12}$$

$$24) (7k)^2$$
$$49k^2$$

$$25) (x^2)^3$$
$$x^6$$

$$26) (2b^2)^4$$
$$16b^8$$