

Unit 1.1 Multiplying powers with the same base

Period _____

Simplify. Your answer should contain only positive exponents.

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

2^6

2) $2 \cdot 2^2$

2^3

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

$24x^5$

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

$4b^6$

5) $n^4 \cdot 2n$

$2n^5$

6) $2b^3 \cdot 3b^3$

$6b^6$

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

$8n^6$

8) $3p^2 \cdot 2p^4$

$6p^6$

9) $3v^4 \cdot 3v^3$

$9v^7$

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

$8x^7$

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

$2x^4$

12) $4x^3 \cdot x$

$4x^4$

13) $4m^2n^4 \cdot 3n^3$

$12m^2n^7$

14) $4a^2b^2 \cdot 3b$

$12a^2b^3$

15) $3v^3 \cdot u^4v^3$

$3v^6u^4$

16) $3x^3y^3 \cdot x^4y^2$

$3x^7y^5$

$$17) xy^3 \cdot 3x^3y^4$$
$$3x^4y^7$$

$$18) 3xy \cdot 3x^4$$
$$9x^5y$$

$$19) 4y^4 \cdot x^3y^3 \cdot 3y^2$$
$$12y^9x^3$$

$$20) 2x^2y^4 \cdot x^4y^3$$
$$2x^6y^7$$

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

$$22) 3m^4n^3 \cdot 4m^4n^4$$
$$12m^8n^7$$

$$23) zx^2 \cdot 3z^2$$
$$3z^3x^2$$

$$24) 3mp^3q^2 \cdot 4pm^2q^3$$
$$12m^3p^4q^5$$

$$25) 3a^4 \cdot 2b^4$$
$$6a^4b^4$$

$$26) 2zx^3y^4 \cdot 4xz^3$$
$$8z^4x^4y^4$$

$$27) 2ab^3 \cdot a^4b^4$$
$$2a^5b^7$$

$$28) 4jh^4 \cdot 2h^2j^3$$
$$8j^4h^6$$

$$29) 3m^3q^4 \cdot 3pm^2$$
$$9m^5q^4p$$

$$30) 3hj \cdot jh^3k^3$$
$$3h^4j^2k^3$$

$$31) 3q^4r^4 \cdot 4prq^2 \cdot 3q^3r^4$$
$$36q^9r^9p$$

$$32) 3h^2k^3 \cdot 3h^3k^4$$
$$9h^5k^7$$