

Exponents 1

**MULTIPLE CHOICE.** Choose the one alternative that best completes the statement or answers the question.

**Simplify.**

- |                            |                  |                         |                          |                         |          |
|----------------------------|------------------|-------------------------|--------------------------|-------------------------|----------|
| 1) $(-4a)^3$               | A) $-64a$        | B) $-64a^3$             | C) $-12a$                | D) $-12a^3$             | 1) _____ |
| 2) $(5xy)^4(3x^7y^3)^4$    | A) $15x^8y^{16}$ | B) $15x^{32}y^{16}$     | C) $50,625x^{32}y^{16}$  | D) $50,625x^{15}y^{11}$ | 2) _____ |
| 3) $(6x)(2x^5)^4$          | A) $96x^{21}$    | B) $96x^9$              | C) $96x^{20}$            | D) $12x^{21}$           | 3) _____ |
| 4) $(-3x)(6x^4)^2$         | A) $-108x^9$     | B) $-108x^6$            | C) $-18x^9$              | D) $-108x^8$            | 4) _____ |
| 5) $(-8x^8y^8z)^3$         | A) $-512x^8y^8z$ | B) $-24x^{25}y^{25}z^4$ | C) $-512x^{24}y^{24}z^3$ | D) $512x^{11}y^{11}z$   | 5) _____ |
| 6) $(y^4)^3 \cdot (y^9)^8$ | A) $y^{168}$     | B) $y^{119}$            | C) $y^{60}$              | D) $y^{84}$             | 6) _____ |
| 7) $(y^7)^7$               | A) $7y^7$        | B) $y^{14}$             | C) $y^{49}$              | D) $7y^{49}$            | 7) _____ |

**Multiply.**

- |                            |                |               |                |                |           |
|----------------------------|----------------|---------------|----------------|----------------|-----------|
| 8) $(-3x^3y)(-9x^2y^5)$    | A) $27x^6y^5$  | B) $27x^5y^6$ | C) $-27x^5y^6$ | D) $-27x^5y^5$ | 8) _____  |
| 9) $x^4 \cdot x^{11}$      | A) $x^{15}$    | B) $x^{44}$   | C) $2x^{44}$   | D) $2x^{15}$   | 9) _____  |
| 10) $(-7p^7) \cdot (5p^6)$ | A) $-35p^{42}$ | B) $35p^{13}$ | C) $35p^{42}$  | D) $-35p^{13}$ | 10) _____ |
| 11) $-14t \cdot 13t$       | A) $-182t$     | B) $-182t^2$  | C) $-364t^2$   | D) $-364t$     | 11) _____ |
| 12) $x \cdot x^{10}$       | A) $2x^{10}$   | B) $x^{11}$   | C) $2x^{11}$   | D) $x^{10}$    | 12) _____ |

## Answer Key

Testname: EXPONENTS

- 1) B
- 2) C
- 3) A
- 4) A
- 5) C
- 6) D
- 7) C
- 8) B
- 9) A
- 10) D
- 11) B
- 12) B