

Section 5-2: Multiplying Powers that Have the Same Base

Finding the Product of Powers

1. 060312a, P.I. A.A.12
The expression $3^2 \cdot 3^3 \cdot 3^4$ is equivalent to
[A] 27^9 [B] 27^{24} [C] 3^9 [D] 3^{24}
2. 080001a, P.I. A.A.12
The product of $2x^3$ and $6x^5$ is
[A] $10x^8$ [B] $10x^{15}$
[C] $12x^8$ [D] $12x^{15}$
3. 010205a, P.I. A.A.12
The product of $3x^2y$ and $-4xy^3$ is
[A] $12x^3y^4$ [B] $12x^2y^3$
[C] $-12x^3y^4$ [D] $-12x^2y^3$
4. 010306a, P.I. A.A.12
The product of $3x^5$ and $2x^4$ is
[A] $5x^9$ [B] $6x^{20}$ [C] $5x^{20}$ [D] $6x^9$

5. 089906a, P.I. A.A.12
The product of $4x^2y$ and $2xy^3$ is
[A] $8x^2y^3$ [B] $8x^3y^4$
[C] $8x^3y^3$ [D] $8x^2y^4$
6. 080605a, P.I. A.A.12
What is the product of $10x^4y^2$ and $3xy^3$?
[A] $30x^5y^6$ [B] $30x^4y^6$
[C] $30x^5y^5$ [D] $30x^4y^5$
- ### Finding a Power of a Power
7. 010728a, P.I. A.A.12
The expression $(6x^3y^6)^2$ is equivalent to
[A] $12x^6y^{12}$ [B] $36x^5y^8$
[C] $6x^6y^{12}$ [D] $36x^6y^{12}$
8. 010506a, P.I. A.A.12
The product of $(5ab)$ and $(-2a^2b)^3$ is
[A] $-40a^7b^4$ [B] $-30a^7b^4$
[C] $-40a^6b^4$ [D] $-30a^6b^4$

[1] C

[2] C

[3] C

[4] D

[5] B

[6] C

[7] D

[8] A