tutorified

8.EE.A.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions.

1. Simplify $x^2 \cdot 4x^3 \cdot y^4 \cdot 4y^2$.

   [A] $16x^5y^6$ [B] $8x^6y^6$ [C] $8x^5y^8$

   [D] $1024x^6y^8$ [E] $16x^6y^6$

Simplify:

2. $(2xy^2)(5x^4y^4)$

   [A] $10x^4y^8$ [B] $7x^5y^6$

   [C] $10x^5y^6$ [D] $7xy^4$

3. $(7xy^2)(9xy^4)$

   [A] $16xy^4$ [B] $63x^2y^6$

   [C] $63xy^8$ [D] $16x^2y^6$

4. $(-9x^3y^4)(-6x^3y^2)$

   [A] $-15x^6y^6$ [B] $54x^9y^8$

   [C] $-15x^3y^2$ [D] $54x^6y^6$

5. $(3x^3y)(-4xy^2)$

   [A] $-x^4y^3$ [B] $-12x^4y^3$

   [C] $-12x^3y^2$ [D] $-x^3y^2$

6. $(-6x^2y^4)(-8x^2y)$

   [A] $48x^4y^4$ [B] $-14x^4y^5$

   [C] $48x^4y^5$ [D] $-14x^2y$

7. $(-5x^4y^3)(2x^3y^3)$

   [A] $-3x^7y^6$ [B] $-10x^7y^6$

   [C] $-3x^4y^3$ [D] $-10x^{12}y^9$

8. Show two ways to use a calculator to find the value of $6^2 \cdot 6^3$.

9. Write $2x^9$ as the product of two powers with the same base.

10. Write $8x^8$ as the product of two powers with the same base.

8.EE.A.1 Multiplication of Integer Exponents

8.EE.A.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions.

[1] A

[2] C

[3] B

[4] D

[5] B

[6] C

[7] B

6 $\boxed{\wedge}$ 2 $\boxed{x}$ 6 $\boxed{\wedge}$ 3

[8] 6 $\boxed{\wedge}$ $\boxed{(}$ 2 $\boxed{+}$ 3 $\boxed{)}$

[9] Answers may vary. Sample: $2x^2 \cdot x^7$

[10] Answers may vary. Sample: $2x^4 \cdot 4x^4$