

Multiplying Exponents (B)

Simplify each expression.

1. $3^9 \cdot 3^{-8}$

2. $(-2)^4 \cdot (-2)^2$

3. $(-5)^{-7} \cdot (-5)^3$

4. $2^{-7} \cdot 2^9$

5. $5^3 \cdot 5^{-6}$

6. $7^6 \cdot 7^8$

7. $5^{-4} \cdot 5^6$

8. $7^{-9} \cdot 7^8$

9. $2^{-9} \cdot 2^{-8}$

10. $(-7)^2 \cdot (-7)^{-4}$

Multiplying Exponents (B) Answers

Simplify each expression.

1. $3^9 \cdot 3^{-8}$

$$= 3$$

2. $(-2)^4 \cdot (-2)^2$

$$= (-2)^6$$

3. $(-5)^{-7} \cdot (-5)^3$

$$= (-5)^{-4} = \frac{1}{(-5)^4}$$

4. $2^{-7} \cdot 2^9$

$$= 2^2$$

5. $5^3 \cdot 5^{-6}$

$$= 5^{-3} = \frac{1}{5^3}$$

6. $7^6 \cdot 7^8$

$$= 7^{14}$$

7. $5^{-4} \cdot 5^6$

$$= 5^2$$

8. $7^{-9} \cdot 7^8$

$$= 7^{-1} = \frac{1}{7}$$

9. $2^{-9} \cdot 2^{-8}$

$$= 2^{-17} = \frac{1}{2^{17}}$$

10. $(-7)^2 \cdot (-7)^{-4}$

$$= (-7)^{-2} = \frac{1}{(-7)^2}$$