

# Powers of Exponents (J)

Simplify each expression.

1.  $(5^5)^2$

2.  $(2^0)^6$

3.  $(9^7)^7$

4.  $(2^9)^8$

5.  $(3^2)^9$

6.  $(7^6)^2$

7.  $(4^9)^7$

8.  $(6^3)^9$

9.  $(4^0)^2$

10.  $(7^3)^4$

## Powers of Exponents (J) Answers

Simplify each expression.

1.  $(5^5)^2$

$$= 5^{10}$$

2.  $(2^0)^6$

$$= 2^0 = 1$$

3.  $(9^7)^7$

$$= 9^{49}$$

4.  $(2^9)^8$

$$= 2^{72}$$

5.  $(3^2)^9$

$$= 3^{18}$$

6.  $(7^6)^2$

$$= 7^{12}$$

7.  $(4^9)^7$

$$= 4^{63}$$

8.  $(6^3)^9$

$$= 6^{27}$$

9.  $(4^0)^2$

$$= 4^0 = 1$$

10.  $(7^3)^4$

$$= 7^{12}$$