

# Powers of Exponents (F)

Simplify each expression.

1.  $(8^8)^9$

2.  $(3^5)^8$

3.  $(9^7)^3$

4.  $(6^4)^7$

5.  $(9^1)^6$

6.  $(3^3)^0$

7.  $(2^7)^4$

8.  $(6^7)^9$

9.  $(8^9)^5$

10.  $(5^1)^6$

# Powers of Exponents (F) Answers

Simplify each expression.

1.  $(8^8)^9$

$$= 8^{72}$$

2.  $(3^5)^8$

$$= 3^{40}$$

3.  $(9^7)^3$

$$= 9^{21}$$

4.  $(6^4)^7$

$$= 6^{28}$$

5.  $(9^1)^6$

$$= 9^6$$

6.  $(3^3)^0$

$$= 3^0 = 1$$

7.  $(2^7)^4$

$$= 2^{28}$$

8.  $(6^7)^9$

$$= 6^{63}$$

9.  $(8^9)^5$

$$= 8^{45}$$

10.  $(5^1)^6$

$$= 5^6$$