

Name: \_\_\_\_\_

Score: \_\_\_\_\_

**Exponents**

ES1

Find the value of  $x$  to balance the equation.

1) $x^3 = 343$  $x =$ _____	2) $1024 = 2^x$  $x =$ _____	3) $512 = x^3$  $x =$ _____
4) $729 = 3^x$  $x =$ _____	5) $225 = x^2$  $x =$ _____	6) $x^3 = 1331$  $x =$ _____
7) $x^2 = 196$  $x =$ _____	8) $625 = x^4$  $x =$ _____	9) $1024 = 4^x$  $x =$ _____
10) $32 = 2^x$  $x =$ _____	11) $x^3 = 729$  $x =$ _____	12) $1728 = x^3$  $x =$ _____
13) $x^4 = 1296$  $x =$ _____	14) $1000 = x^3$  $x =$ _____	15) $256 = 2^x$  $x =$ _____
16) $243 = 3^x$  $x =$ _____	17) $x^2 = 169$  $x =$ _____	18) $216 = x^3$  $x =$ _____
19) $64 = x^2$  $x =$ _____	20) $125 = 5^x$  $x =$ _____	21) $x^2 = 49$  $x =$ _____

Name: \_\_\_\_\_

**Answer key**

Score: \_\_\_\_\_

**Exponents**

ES1

1) $x^3 = 343$  $x = 7$	2) $1024 = 2^x$  $x = 10$	3) $512 = x^3$  $x = 8$
4) $729 = 3^x$  $x = 6$	5) $225 = x^2$  $x = 15$	6) $x^3 = 1331$  $x = 11$
7) $x^2 = 196$  $x = 14$	8) $625 = x^4$  $x = 5$	9) $1024 = 4^x$  $x = 5$
10) $32 = 2^x$  $x = 5$	11) $x^3 = 729$  $x = 9$	12) $1728 = x^3$  $x = 12$
13) $x^4 = 1296$  $x = 6$	14) $1000 = x^3$  $x = 10$	15) $256 = 2^x$  $x = 8$
16) $243 = 3^x$  $x = 5$	17) $x^2 = 169$  $x = 13$	18) $216 = x^3$  $x = 6$
19) $64 = x^2$  $x = 8$	20) $125 = 5^x$  $x = 3$	21) $x^2 = 49$  $x = 7$