Name _____

Date _____

Exponents

Score _____

1. 3 x 3 can be written as 2^3 in exponential form.
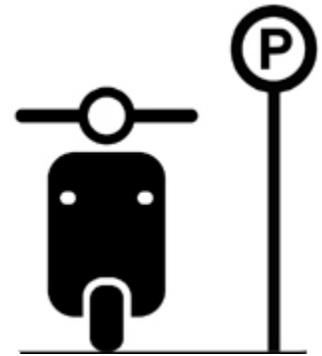
(T) True

(F) False

2. A square parking lot with a side length of 0.25km has an area of $6.25km^2$.

(T) True

(F) False

3. $8 \times 8 \times 8 \times 8 \times 8 = 5^8$.

(T) True

(F) False

4. $3^5 > 4^4$

(T) True

(F) False

5. $3 \times 3 \times 3 \times 3 \times 3 \times 3 < 6^3$

(T) True

(F) False

6. What is the area of a square with a side length of 8 units?

(A) 32 units
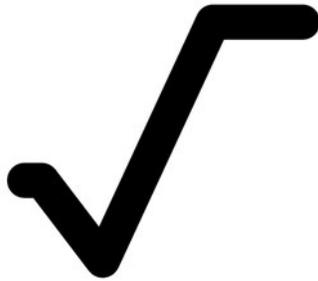
(B) 32 square units

(C) 64 units

(D) 64 square units

7. What is the volume of a cube with a side length of 13 cm?

(A) 39 cm^2

(B) 78 cm^3

(C) 169 cm^2

(D) 2197 cm^3

8. Write 14 x 14 x 14 in exponential form.

(A) 3 x 14

(B) 14 x 3

(C) 14^3

(D) 314

9.

What is the value of the square root of 1024?

(A) 32

(B) 128

(C) 256

(D) 512

10. Which of these numbers is NOT a perfect square: 36, 121, 361 or 426?
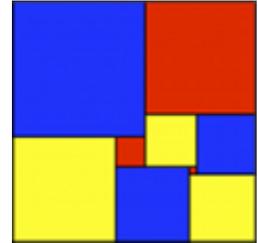
(A) 36

(B) 121

(C) 361

(D) 426

11. What is the value of the square root of 0.81?

(A) 0.09

(B) 0.9

(C) 9

(D) 90

12. What is the side length of a square with an area of 196m^2?

(A) 14m

(B) 24m

(C) 49m

(D) 98m

13. What is another way of writing 7^3?

(A) 3^7

(B) 7 x 3

(C) 7 x 7 x 7

(D) 3 x 3 x 3 x 3 x 3 x 3 x 3

14. In the expression 7^4, what is the number 4?

(A) base

(B) power

(C) exponent

(D) multiplying factor

15. In the expression 5^9, what is the number 5?

(A) base

(B) power

(C) exponent

(D) multiplying factor

16. Write 2187 as a power of 3.

(A) 3^7

(B) 7^3

(C) 3 x 729

(D) 729^3

17. Which number has the greatest value?

(A) 2^{10}

(B) 4^6

(C) 5^4

(D) 32^2

18. Which number has the greatest value?

(A) 1^{100}

(B) 9^2

(C) 76

(D) square root of 4900

19. Which of the following is a power equal to 8^4?

(A) 2^{10}

(B) 4^6

(C) 12^3

(D) 16^2

20. Farmer Brown returns after a 3 month vacation. Weeds have overgrown the garden. Before the vacation there was only $2m^2$ in weeds. The growth of the weeds doubled every 4 weeks. After 3 months what area was now covered in weeds?

(A) $64m^2$

(B) $32m^2$

(C) $8m^2$

(D) $16m^2$