



# ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

## CLASS 8

**SUBJECT :Algebra & GeometryWork sheet10 Answer key**

**Marks:15 Exponents**

**Date:15.2.21**

**Answer all the following questions(1×15=15)**

1 . In standard form 21600000 is written as

- (a)  $2.16 \times 10^7$
- (b)  $216 \times 10^7$
- (c)  $2.16 \times 10^5$
- (d)  $216 \times 100000$

▶ (a)  $2.16 \times 10^7$

2. The value of  $3^0$  is \_\_\_\_\_.

- (a) 0
- (b) 3
- (c) 1
- (d) None of these

▶ (c) 1

3. When we have to add numbers in standard form, we convert them into numbers with the \_\_\_\_\_ exponents.

- (a) same
- (b) different
- (c) not equal
- (d) None of these

▶ (a) same

4. Simplify:  $2^5 \div 2^{-6}$

(a)  $2^9$

(b)  $2^{11}$

(c)  $2^{10}$

(d) None of these

▶ (b)  $2^{11}$

5. 16 is the multiplicative inverse of

(a)  $2^{-4}$

(b)  $2^8$

(c)  $8^2$

(d)  $2^4$

▶ (a)  $2^{-4}$

6. Write the expression using exponents:  $61 \times 61 \times 61 \times 61 \times 61$

(a)  $6^{12}$

(b)  $6^{13}$

(c)  $6^{14}$

(d)  $6^{15}$

▶

7. Find the value of the expression  $a^2$  for  $a = 10$ .

(a) 100

(b) 1

(c) 10

(d) None of these

▶ (a) 100

8. Which one of the following is the value of  $1^{15}$

(a) 0

(b) 15

(c) 1

(d) None of these

► (c) 1

9. Write the expression using exponents:  $89 \times 89 \times 89 \times 89$

(a)  $89^4$

(b)  $89^6$

(c)  $89^5$

(d) None of these

► (a)  $89^4$

10. In standard form 56700000 is written as \_\_\_\_\_

(a)  $5.67 \times 10^7$

(b)  $567 \times 10^7$

(c)  $5.67 \times 10^5$

(d)  $567 \times 100000$

► (a)  $5.67 \times 10^7$

11. Find the value of x, if  $32 = 2^x$ .

(a) 5

(b) 2

(c) 3

(d) 4

► (a) 5

12. The approximate distance of moon from the earth is 384,467,000 m and in exponential form. This distance can be written as

(a)  $3.84,467 \times 10^8$  m

(b)  $384,467 \times 10^{-8}$  m

(c)  $384,467 \times 10^{-9}$  m

(d)  $3.844,67 \times 10^{-13}$  m

► (a)  $3.84,467 \times 10^8$  m

13. The expression,  $(5^{-1} + 7^{-1} + 3^{-1})^0$  is equals to

(a)  $15^{-3}$

(b) -3

(c)  $15^{-1}$

(d) 1

► (d) 1

14. Expand 1256.249 using exponents.

(a)  $1 \times 10^3 + 2 \times 10^2 + 5 \times 10^1 + 6 \times 10^0 + 2 \times 10^{-1} + 4 \times 10^{-2} + 9 \times 10^{-3}$

(b)  $1 \times 10^5 + 2 \times 10^2 + 5 \times 10^1 + 6 \times 10^0 + 2 \times 10^{-1} + 4 \times 10^{-2} + 9 \times 10^{-3}$

(c)  $1 \times 10^4 + 2 \times 10^2 + 5 \times 10^2 + 6 \times 10^1 + 2 \times 10^3 + 4 \times 10^{-1} + 9 \times 10^{-2}$

(d) None of these

► (a)  $1 \times 10^3 + 2 \times 10^2 + 5 \times 10^1 + 6 \times 10^0 + 2 \times 10^{-1} + 4 \times 10^{-2} + 9 \times 10^{-3}$

15. Find the multiplicative inverse of  $7^{-2}$ .

(a)  $7^4$

(b)  $7^3$

(c)  $7^5$

(d)  $7^2$

► (d)  $7^2$

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