



ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution

Class: 7

Worksheet Solution 15

EXPONENTS



Sub: Arithmetic

Duration: 40 Min

Date: 05.03.21

Full Marks: 15

Choose the correct options:

1. What is the value of $(-1)^{-1}$?

I. 0

II. -1

III. 1

IV. None of these

2. Which of the following is the value of 'm' in $6^m / 6^{-3} = 6^5$?

I. -3

II. -2

III. 3

IV. 2

3. Which of the following is the standard form of 0.00001275?

I. $1.275 * 10^{-5}$

II. $1.275 * 10^5$

III. $127.5 * 10^{-7}$

IV. $127.5 * 10^7$

4. Which of the following is used as a form of $5.05 * 10^6$?

I. 505000

II. 505000000

III. 5050000

IV. 50500000

5. For which of the following is $m = 8$?

I. $(5^m \times 5^{-3}) / 5^2 = 5^3$

II. $-(5^m \times 5^{-3}) / 5^3 = 5^2$

III. $(5^m \times 5^3) / 5^2 = 5^3$

IV. $(5 \times 5^{-2}) / 5^2 = 5^3$

6. 1 micron = $1/1000000$ m. which of the following is its standard form?

I. $1.1 * 10^{-5}$

II. $1.6 * 10^{-5}$

III. $0.1 * 10^{-6}$

IV. $1.0 * 10^{-6}$

7. $[(1/2)^{-1} + (2/3)^2 - (3/4)^0]^{-2}$ is equal to:

I. $81/484$

II. $81/169$

III. $169/81$

IV. $16/81$

8. Which of the following = $(100 - 99^0) * 100$?

I. 10000

II. 100

III. 9900

IV. 99000

9. What is the reciprocal of $(-3/4)^0$?

I. -1

II. 1

III. $-4/3$

IV. $4/3$

10. Which of the following is the value of $(4/5)^{-9} / (4/5)^{-9}$?

I. $(4/5)^{18}$

II. $4/5$

III. 1

IV. $(5/4)^9$

11. Any quantity, other than zero, raised to a power of zero is always:

I. 10

II. 1

III. the original quantity

IV. -1

12. Simplify: $(3x^4y^5)^2$

I. $9x^8y^{10}$

II. $6x^8y^{10}$

III. $9x^6y^7$

IV. $6x^6y^7$

13. In 2^3 what is the base?

- I. **2**
- II. 1
- III. 3
- IV. 2^3

14. 5^{-2}

- I. **$1/25$**
- II. $1/10$
- III. 25
- IV. 55

15. Simplify.

$$s^{-5} \cdot s^{-2}$$

- I. s^{-3}
- II. $1/s^{-7}$
- III. **s^{-7}**
- IV. $1/s^3$