

College Prep Algebra
Order of Operations

NAME _____
HOUR _____ **DUE DATE** _____

ALL work MUST be done in pencil. Show all work for problems 10 - 31 on attached notebook paper. Do not write on the back of any papers to be turned in. Check your answers with the key posted in the classroom or on my office bulletin board and correct any mistakes before you hand it in. Calculators are **not** permitted on this assignment.

Find the value of the following:

- | | | |
|--------------------|-------------------|-------------------|
| 1.) $2^3 =$ _____ | 2.) $3^2 =$ _____ | 3.) $4^4 =$ _____ |
| 4.) $5^3 =$ _____ | 5.) $1^8 =$ _____ | 6.) $7^2 =$ _____ |
| 7.) $10^6 =$ _____ | 8.) $6^3 =$ _____ | 9.) $9^2 =$ _____ |

Using the Order of Operations, find the value of the following. Show each step used.

- | | |
|--|--|
| 10.) $36 - 10 + 8$ | 11.) $4(5)^2$ |
| 12.) $36 \div 9(2)$ | 13.) $6 + 4(3)$ |
| 14.) $24 \div (8 + 4)$ | 15.) $24 \div 8 + 3$ |
| 16.) $30 - 3(2)(4)$ | 17.) $9(4) - 6(5)$ |
| 18.) $16 - 10 \div 2$ | 19.) $(16 - 10) \div 2$ |
| 20.) $2^5 - 3^3$ | 21.) $4(2 + 5)^2$ |
| 22.) $8 + 3(7 - 2)^2$ | 23.) $3(6)^2 - 2(9 - 6)^3$ |
| 24.) $\frac{2}{3} - \frac{7}{12} + \frac{5}{8}$ | 25.) $(1\frac{1}{2} - \frac{3}{4}) \div \frac{5}{8}$ |
| 26.) $2(\frac{1}{3}) + \frac{3}{4} \div (\frac{1}{2})^3$ | 27.) $8 \div (0.2) - 4(0.3)$ |

Evaluate the following when $a = 4$, $b = 3$, and $c = 5$:

- | | | | |
|---------------|----------------|-----------------|--------------------|
| 28.) $ab - c$ | 29.) $b^2 - a$ | 30.) $c + ab^2$ | 31.) $ab - c + bc$ |
|---------------|----------------|-----------------|--------------------|