

# Order of Operations with Expressions

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

Date: \_\_\_\_\_

1. In which order should the operations  $+$ ,  $-$ , and  $\div$  be inserted into the blanks of  $78 \underline{\hspace{1cm}} 24 \underline{\hspace{1cm}} 2 \underline{\hspace{1cm}} 6 = 72$  to make the statement true?

A.  $+$ ,  $-$ ,  $\div$                       B.  $-$ ,  $\div$ ,  $+$   
C.  $+$ ,  $\div$ ,  $-$                       D.  $\div$ ,  $-$ ,  $+$

2. In which order should the operations  $-$ ,  $\times$ , and  $\div$  be inserted into the blanks of  $48 \underline{\hspace{1cm}} 2 \underline{\hspace{1cm}} 4 \underline{\hspace{1cm}} 11 = 13$  to make the statement true?

A.  $\times$ ,  $-$ ,  $\div$                       B.  $-$ ,  $\times$ ,  $\div$   
C.  $\times$ ,  $\div$ ,  $-$                       D.  $\div$ ,  $-$ ,  $\times$

3. If  $A$  stands for “add”,  $S$  for “subtract”,  $M$  for “multiply”, and  $D$  for “divide”, which one of the following sequences represents the correct *order* of operations when evaluating  $4 - (-5 + 6 \times 7) \div 8$ ?

A. *MDAS*                          B. *AMAD*  
C. *MADS*                          D. *AMDS*

4. If  $A$  stands for “add”,  $S$  for “subtract”,  $M$  for “multiply”, and  $D$  for “divide”, which one of the following sequences represents the correct *order* of operations when evaluating  $5 + (6 \times 7) \div 8 - 12$ ?

A. *MDAS*                          B. *AMAD*  
C. *MADS*                          D. *AMDS*

5. In the expression below, which operation is performed first?

$$-\frac{3}{4} + \frac{4}{5} \div \frac{1}{3} \times \frac{2}{5} - \frac{1}{4}$$

A.  $\frac{4}{5} \div \frac{1}{3}$                           B.  $\frac{1}{3} \times \frac{2}{5}$   
C.  $\frac{2}{5} - \frac{1}{4}$                           D.  $-\frac{3}{4} - \frac{1}{4}$

6. Using the correct order of operations, which computation should you make first?

$$7 \div 4 + 1 \times 12 - 4 \div 2$$

A.  $7 \div 4$     B.  $4 + 1$     C.  $1 \times 12$     D.  $4 \div 2$

7. Simplify  $8 - 4 \cdot 2 + 5$  using the correct order of operations.

A. 0      B. 5      C. 13      D. 28

8.  $2 \times 15 - 8 \div 4 = \underline{\hspace{2cm}}$

A. 3.5      B. 5.5      C. 26      D. 28

9. Simplify:  $\frac{3 + 3 \cdot 3}{3}$

A. 2      B. 4      C. 6      D. 9

10. Simplify:  $\frac{893 + 3^3}{4^3}$

A. 14.375      B. 15  
C. 204.375      D. 907.375

11. Evaluate  $3.2b + 4.1$  for  $b = 7.4$

A. 7.62      B. 24.09      C. 25.9      D. 27.78

12. Evaluate  $4.7t + 3.8$  for  $t = 3.1$

A. 14.88      B. 15.67      C. 18.37      D. 148.8

13. What is  $4n + 10n$ , if  $n = \frac{1}{2}$ ?

A. 7      B. 14      C. 15      D. 28

14. Given  $a = 20$  and  $b = \frac{a}{4} - 3$ .

What is the value of  $b$ ?

A. 2      B.  $\frac{17}{4}$       C. 8      D. 92

15. If  $n = 45$ , find the value of  $p$  in the equation  $p = \frac{n}{9} + 5$ .

A. 1      B.  $\frac{50}{9}$       C. 10      D. 234

16. Evaluate  $8 + 2(a + b) - (10 \div b + a^2)$  for  $a = 3$  and  $b = 2$

A. 13      B. 22      C. 36      D. 4

17. Evaluate  $[(8 + 2)(m + n) - 10] \div n + m^2$  for  $m = 3$  and  $n = 2$

A. 13      B. 22      C. 29      D. 54

18. If  $x = 4$  and  $y = 8$ , what is  $x^2 - y$ ?

A. 0      B. 8      C. 16      D. 34

19. Evaluate:  $3a^2 - 4a + 2$  when  $a = 2$

A. -12      B. -2      C. 6      D. 10

20. Evaluate:  $\frac{5^2(x - 3)}{4}$  for  $x = 7$

A. 10      B. 20      C. 25      D. 160

21. Find the value of the numerator if  $r = 6$ :

$$\frac{(4r^2 - 2r - 54)(2r + 12)}{(5x^2 + 8r - 23)(6r + 8)}$$

A. 481      B. 1292      C. 1645      D. 1872

22. Find the value of the numerator if  $r = 3$ :

$$\frac{(3r^2 - 3r - 18)(5r + 18)}{(3r^2 + 6r - 45)(2r + 8)}$$

A. 3      B. 15      C. 48      D. 55

23. The formula  $P = 40r + 1.5r(h - 40)$  is used to calculate the weekly pay of an employee. In the formula,  $r$  is the regular hourly wage, and  $h$  is the number of hours worked. (Notice that overtime hours are paid at  $1\frac{1}{2}$  times the regular wage.) What is the weekly pay of an employee who earns \$8.50 an hour and works 44 hours in one week?

A. \$340      B. \$374      C. \$391      D. \$452

24. The gate receipts at a football game may be calculated by the formula  $G = \$2.50s + \$4.00a$ , where  $s$  is the number of student tickets and  $a$  is the number of adult tickets. What were the gate receipts if there were 300 student tickets and 150 adult tickets sold?

A. \$1350.00      B. \$1425.00  
C. \$1480.00      D. \$1550.00

Order of Operations with Expressions      2/5/2018

1.  
Answer: B  
Objective: 6.EE.2C

2.  
Answer: C  
Objective: 6.EE.2C

3.  
Answer: C  
Objective: 6.EE.2C

4.  
Answer: A  
Objective: 6.EE.2C

5.  
Answer: A  
Objective: 6.EE.2C

6.  
Answer: A  
Objective: 6.EE.2C

7.  
Answer: B  
Objective: 6.EE.2C

8.  
Answer: D  
Objective: 6.EE.2C

9.  
Answer: B  
Objective: 6.EE.2C

10.  
Answer: A  
Objective: 6.EE.2C

11.  
Answer: D  
Objective: 6.EE.2C

12.  
Answer: C  
Objective: 6.EE.2C

13.  
Answer: A  
Objective: 6.EE.2C

14.  
Answer: A  
Objective: 6.EE.2C

15.  
Answer: C  
Objective: 6.EE.2C

16.  
Answer: D  
Objective: 6.EE.2C

17.  
Answer: C  
Objective: 6.EE.2C

18.  
Answer: B  
Objective: 6.EE.2C

19.  
Answer: C  
Objective: 6.EE.2C

20.  
Answer: C  
Objective: 6.EE.2C

21.  
Answer: D  
Objective: 6.EE.2C

22.  
Answer: C  
Objective: 6.EE.2C

23.  
Answer: C  
Objective: 6.EE.2C

24.  
Answer: A  
Objective: 6.EE.2C