

Order of Operations

When solving an equation, be sure to follow the priority pyramid.

1. Parenthesis
2. Exponents
3. Multiplication & Division
4. Addition & Subtraction

KEY

$$3 + (3^2 + 9) \div -3 - 1 = 3 + (9 + 9) \div -3 - 1 = 3 + 18 \div -3 - 1 = 3 + -6 - 1 = -4$$

Solve the following.

1. $(17 - 9) + 5$

13

2. $3 \cdot 5 + 9 \cdot 7$

78

3. $36 \div 9 - 8 + 21 \div 3$

3

4. $12 \div (3 - 7) + 7$

4

5. $8 - 4 \cdot 5(2 - 2) + 3$

11

6. $12 \div (3 + (6 + 3))$

1

7. $9(3 \div 3) + 4(-5 \cdot 9) \div 3$

51

8. $5(9 - 8) \cdot 6 + 5 - 3$

32

9. $3 - (6 \cdot 6) - -3 \cdot 0$

-33

10. $18(5 - 9) + 60 \div 15$
 $18(-4) + 4$
 $-72 + 4 = -68$

11. $\frac{8^2 - 13}{(4 + 9) + 4}$

3

12. $\frac{3^2 - 5 \cdot 7 - 4^2}{(-4 - 9 - 12) + 4}$

-2

13. $\frac{(5 - 9)^2 + 2}{(7 - 8)^2 \cdot 3^2}$

2

14. $\frac{5 \cdot 6 - (3 + 4)}{-2^2 - 2^2 + 3^2}$

23

15. $\frac{3^2 - 10}{4^2 - 12}$

-1/4

16. $\frac{3^2 - 1 + 2^2}{3 + 10 - 19 + 32}$

6/3

17. $\frac{4 + 2 \cdot 3 + 4 - 3}{2^2 \cdot 3^2 - 3}$

1/3

18. $3 \cdot (0 - 7) + 8 \div 2^2$

-19

19. $4^2 + 3^2 - 6^2$

-11

20. $\frac{8 + 7^2 - (14 + 5)}{4^2 - 14}$

19