

Algebra Review Order of Operations Worksheet:

Write your answer in simplest form. Decimal answers not accepted.

When $a = 3$, $b = -1$, and $c = -2$ find the value of:

1. $\frac{a-b}{c}$

3. $a^b - 2b(a-bc)$

5. $10 - 4(b + 2(a^c - 2(4 - ca)^b))$

7. $(a+b)^{-1} + \frac{1}{b - \frac{c}{a}}$

9. $a^2(a + a^2 + a^3)$

11. $\left(\frac{a}{c}\right)^3 * \left(\frac{b}{c^3}\right)^{-2}$

13. $(a+b)^3 * (a+b)^2$

15. $\left(a^{\frac{1}{3}} - b^2\right)\left(a^{\frac{1}{3}} + b^2\right)$

17. $\left(\frac{1}{a + 2a^{-1}}\right)^{-1}$

19. $\sqrt[3]{c^{12} + b^6}$

21. $\sqrt[abc]{a^{cb} + b^{ac} + c^{ab}}$

23. $a^{b^c} + b^{a^c} + c^{a^b}$

25. $\left(\frac{a}{c}\right)^3 \div \left(\frac{b}{c^3}\right)^{-2} \cdot \left(\frac{b}{a}\right)^3$

2. $ab + bc + ac - abc$

4. $5[3(a + 2b - c) + 4(a - b - c)] - 19(a - b - c)$

6. $a + \frac{1}{b - \frac{c}{a}}$

8. $c\left(\frac{a+b}{a-b}\right) + \frac{c + \frac{a}{bc^2}}{2 + \frac{b}{c+a}}$

10. $\left(\frac{ab^2}{ca^2}\right)^3$

12. $\left(\frac{a}{c}\right)^3 \div \left(\frac{b}{c^3}\right)^{-2}$

14. $\frac{\frac{a}{b+c}}{1 + \frac{b+c}{a+b}} \times \frac{\frac{c}{b+a}}{1 + \frac{a+c}{b+c}}$

16. $\left(\frac{a}{b}\right)^{-2} \left(\frac{b}{c}\right)^{-3} \left(\frac{c}{a}\right)^{-4}$

18. $\sqrt{a^2 + a^6}$

20. $a^{cb} + b^{ac} + c^{ab}$

22. $\frac{\frac{a}{b+c}}{1 + \frac{b+c}{a+b}} \div \frac{\frac{c}{b+a}}{1 + \frac{a+c}{b+c}}$

24. $c\left(\frac{a+b}{a-b}\right) - \frac{c + \frac{a}{bc^2}}{2 + \frac{b}{c+a}}$