

CYU 1.4 Exponent & Order of Operations DAY ONE

Use when you get it right all by yourself  
**S** Use when you did it all by yourself, but made a silly mistake  
**H** Use when you could do it alone with a little help from teacher or peer  
**G** Use when you completed the problem in a group  
**X** Use when a question was attempted but wrong (get help)  
**N** Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Evaluating exponent notation	1 - 5	6 - 7	8 - 9
Order of Operations: PEMDAS	10 - 12	13 - 14, 17	15 - 16, 18 - 21

1. Evaluate  $3^5$ .  
 $3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 = 243$

2. Evaluate  $3^3$ .  
 $3 \cdot 3 \cdot 3 = 27$

3. Evaluate  $1^5$ .  
 $1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 = 1$

10. Simplify  $5 + 6 \cdot 2$   
 $17$

11. Simplify  $4 \cdot 8 - 6 \cdot 2$   
 $20$

12. Simplify  $2(8 - 3)$   
 $10$

4. Evaluate  $5^1$ .  
 $5$

5. Evaluate  $7^2$ .  
 $7 \cdot 7 = 49$

6. Evaluate  $(\frac{2}{3})^4$ .  
 $(\frac{2}{3}) \cdot (\frac{2}{3}) \cdot (\frac{2}{3}) \cdot (\frac{2}{3}) = \frac{16}{81}$

13. Simplify  $2 + (5 - 2) + 4^2$   
 $21$

14. Simplify  $5 \cdot 3^2$   
 $45$

15. Simplify  $\frac{1}{4} \cdot \frac{2}{3} - \frac{1}{6}$   
 $0$

7. Evaluate  $(\frac{1}{5})^3$ .  
 $(\frac{1}{5}) \cdot (\frac{1}{5}) \cdot (\frac{1}{5}) = \frac{1}{125}$

8. Evaluate  $(1.2)^2$ .  
 $(1.2)(1.2) = 1.44$

9. Evaluate  $(0.04)^3$ .  
 $(0.04)(0.04)(0.04) = 0.000064$

16. Simplify  $2[5 + 2(8 - 3)]$

30

19. Simplify  $\frac{3+3(5+3)}{3^2+1}$

$\frac{27}{10}$

17. Simplify  $\frac{19-3 \cdot 5}{6-4}$

2

20. Simplify  $2 + 3 [10 (4 \cdot 5 - 16) - 30]$

32

18. Simplify  $\frac{|6-2|+3}{8+2 \cdot 5}$

$\frac{7}{18}$

21. Simplify  $\left(\frac{2}{3}\right)^3 + \frac{1}{9} + \frac{1}{3} \cdot \frac{4}{3}$

$\frac{23}{27}$

**CYU Reflection:** How far can you go: basic, intermediate, or advanced?

**Rate your mastery level!**

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

