

## Review for Mastery

### Order of Operations

To help you remember the order of operations use the phrase  
**“Please Excuse My Dear Aunt Sally.”**

**P:** first, **p**arentheses (if any)  
**E:** second, **e**xponents (if any)  
**M** and **D:** then, **m**ultiplication and **d**ivision, in order from left to right  
**A** and **S:** finally, **a**ddition and **s**ubtraction, in order from left to right

Evaluate.

$$39 \div (9 + 4) + 5 - 2^2$$

Parentheses  $\longrightarrow$   $39 \div 13 + 5 - 2^2$

Exponents  $\longrightarrow$   $39 \div 13 + 5 - 4$

Multiply and divide from left to right  $\longrightarrow$   $3 + 5 - 4$

Add and subtract from left to right  $\longrightarrow$   $8 - 4 = 4$

**Simplify each expression.**

1.  $12 \cdot 4 - 2$

\_\_\_\_\_ - 2

\_\_\_\_\_

2.  $15 \div 3 \cdot 5$

\_\_\_\_\_  $\cdot$  5

\_\_\_\_\_

3.  $15 \cdot 3 \div 5$

\_\_\_\_\_  $\div$  5

\_\_\_\_\_

4.  $8 + 20 \div 4$

\_\_\_\_\_

5.  $5 - 2 \cdot 6 \div 4 + 1$

\_\_\_\_\_

6.  $3^2 + 6 \cdot 4 - 5^2$

\_\_\_\_\_

7.  $1 + 4 \cdot 9 \div 6 - 7$

\_\_\_\_\_

8.  $18 \div (6 \div 3)$

\_\_\_\_\_

9.  $(18 \div 6) \div 3$

\_\_\_\_\_

10.  $4 \cdot 5 + 8 \div 2 - 7$

\_\_\_\_\_

11.  $2 \cdot 3 - 8 \div 2^2$

\_\_\_\_\_

12.  $8(7 - 6) \div 2^3$

\_\_\_\_\_

8.H

**Reading Strategies**

1. 5 times
2.  $2.8 \times 10 \times 10 \times 10 \times 10 \times 10$
3. 5 places; 4
4. 280,000

**Puzzles, Twisters & Teasers**

1. 4
2. 5
3. 5.92
4. 1.68
5. 8
6. 2.44; 7

**SPACE CHIPS**

**LESSON 1-4**

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**Practice A**

1. B
2. J
3. A
4. G
5. C
6. H
7. 7
8. 38
9. 12
10. 1
11. 48
12. 27
13. 80
14. 1
15. 14
16. \$8
17. \$52

**Practice B**

1. 69
2. 219
3. 21
4. 53
5. 21
6. 10
7. 33
8. 88
9. 28
10. 0
11. 57
12. 39
13. 39
14. 11
15. 46
16. 7
17. 18
18. 12
19. 18
20. 95
21. 19
22. 44
23. 0
24. 17
25. \$10
26. \$22

**Practice C**

1. 195
2. 154

3. 51
4. 71
5. 524
6. 19
7. 81
8. 130
9. 85
10. 1
11. 38
12. 8
13. 7
14. 18
15. 12
16.  $18 + 2(1 + 3^2)$
17.  $(4 \cdot 2 - 2)^2 \div 9 + 2$
18.  $3^3 - (9 \cdot 2 + 1)$
19.  $2^3 - (3 \cdot 5 - 8)$
20.  $35 + 4^2 - (6 - 3)$
21.  $6 \cdot 7 - 3 \cdot (4 + 1)$
22. \$93
23. \$19

**Review for Mastery**

1. 48; 46
2. 5; 25
3. 45; 9
4. 13
5. 3
6. 8
7. 0
8. 9
9. 1
10. 17
11. 4
12. 1

**Challenge**

1. \$313
2. \$342
3. \$268
4. \$180
5.  $7(5 \cdot 12) + 11(4 \cdot 12)$ ; \$948
6.  $7(5 \cdot 12) + 11(4 \cdot 12) + 35$ ; \$983
7.  $12(5 \cdot 12) + 18(4 \cdot 12) - [7(5 \cdot 12) + 11(4 \cdot 12) + 35]$ ; \$601
8. \$577

**Problem Solving**

1.  $35 \cdot 2.10 - 12$ ; \$61.50
2.  $3 \cdot 3.50 + 4 \cdot 3$ ; \$22.50
3. \$324 per week
4. She has \$31 left.
5. B
6. F
7. C
8. J