

Unit 1 Objective 4 Remediation

Algebraic Order of Operations

Evaluating numerical expressions by using the rules for the algebraic order of operations.

Please Excuse My Dear Aunt Sally

P Parentheses

E Exponents

M/D Multiplication and Division from Left to Right

A/S Addition and Subtraction from Left to Right

Example 1: $20 + 14 \div 7 \cdot 2$

$$20 + 14 \div 7 \cdot 2 = 20 + 2 \cdot 2 \text{ Divide 14 by 7}$$

$$= 20 + 4 \text{ Multiply 2 by 2}$$

$$= 24 \text{ Add 20 and 4}$$

Example 2: $2 \cdot 2 - 2 \div 2$

$$2 \cdot 2 - 2 \div 2 = 4 - 2 \div 2 \text{ Multiply 2 by 2}$$

$$= 4 - 1 \text{ Divide 2 by 2}$$

$$= 3 \text{ Subtract 1 from 4}$$

Evaluate each expression.

1) $16 - 8 \div 4$ _____

2) $8 - 20 \div 5$ _____

3) $6 + 5 \cdot 3$ _____

4) $7 - 15 \div 5$ _____

5) $7 + 45 \div 9$ _____

6) $10 + 14 \div 7$ _____

7) $5 \cdot 9 - 4$ _____

8) $6 \cdot 3 + 2$ _____

9) $3 + 5 \cdot 2$ _____

10) $5 + 3 \cdot 4$ _____

11) $3 \cdot 6 + 4 \cdot 2$ _____

12) $36 \div 6 + 3$ _____

13) $8 + 12 \div 4 \cdot 6$ _____

14) $3 - 1 - 8 \div 4$ _____

15) $4 \cdot 2 + 10 \div 5$ _____

16) $3 \div 3 + 3 - 3 \div 3$ _____

17) $8 \cdot 2 + 4 - 1$ _____

18) $100 - 10 \cdot 5 \cdot 2$ _____

19) $10 \div (3 + 2)$ _____

20) $7 + (6 + 4) \cdot 2$ _____

21) $5 + (6 + 3) \cdot 2$ _____

22) $5 \cdot (2 + 3) - 7$ _____

23) $63 \div 9 + (18 - 5)$ _____

24) $7 \cdot (6 + 5) - 10$ _____

25) $2^4(4 + 2)$ _____

26) $5^3 + 6$ _____