

## 1.2 Order of Operation

1)  $(7 - 2) \div 5$

2)  $(3 + 3)^2$

3)  $(6 - 3)^2$

4)  $5 + (16 + 2) \div 3$

5)  $(-6 \bullet 2) \div -3$

6)  $2 + 12 \div 2 + 1$

7)  $-4 - (1 - 5) - (-4)^2$

8)  $-3 \bullet 2 \bullet 2(-3 - 1)$

9)  $12 - 3(6 - 3)^2$

10)  $((-16 - (-2 + 1)) \bullet 2) \div 5$

11)  $2 - 8 \div -2 - 3 - -12 \div -6 \bullet -2$

12)  $(-11 - 6 - -5 + 1 + 3 \bullet 2) \div -5$

13) Lilia scores 15 points fewer than Bob, who scores 35 points. Carol scores half as many points as Lilia. How many points does Carol score? Write an expression and evaluate it.

14) Use the order of operations and the digits 2, 4, 6, and 8 to create an expression with a value of 2. Tip: You may add exponents and/or negatives at your will. You must use all the numbers at least once.

15) Explain why we must have order of operations.

## Error Analysis – Order of Operations

Bob missed class yesterday so he went onto the school website to pull up the Order of Operations worksheet. He *took risks* and *worked persistently* but made mistakes along the way.

In the boxes below, please:

- a) Circle the mistakes in his original work.
- b) Then show the correct work below and solve the problem.

$25 - 9 \times 2 + 3 =$ $25 - 18 + 3$ $25 - 21$ $4$ <p><b>Corrections:</b></p>	$2 + 3(5 + 4) =$ $2 + 3(9)$ $5(9)$ $45$ <p><b>Corrections:</b></p>	$15 - 12 \div 4 \times 3 =$ $15 - 12 \div 12$ $15 - 1$ $14$ <p><b>Corrections:</b></p>
$6 + 9 \div 3 \times 4 =$ $15 \div 3 \times 4$ $5 \times 4$ $20$ <p><b>Corrections:</b></p>	$5 \times 6 - 3^3 \div 3 =$ $5 \times 6 - 9 \div 3$ $30 - 3$ $27$ <p><b>Corrections:</b></p>	$\frac{4(8 - 2)}{2 + 1} =$ $\frac{4(6)}{2 + 1}$ $24 \div 2 + 1$ $12 + 1$ $13$ <p><b>Corrections:</b></p>