

Math 5

UNIT 1 – Numerical Expressions

1-4 **Order of Operations with Parentheses**

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| **Name:** |  | **Date:** |  |

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| **Common Core Standards** | [CCSS.MATH.CONTENT.5.OA.A.1](http://www.corestandards.org/Math/Content/5/OA/A/1/)Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. |

1-4 Order of Operations with Parentheses



The **PEMDAS** Rule

**Step #1**

**You work on the numbers and operations inside the grouping symbols first. Work on the calculation inside the parentheses, then the calculation inside the brackets and lastly, the calculations inside the braces.**

**Step #2**

**Find the value of numbers with exponents (if there are any).**

**Step #3**

**If all the calculations inside the grouping symbols are done, you may now start working on the calculations from left to right like the arrows below.**

**Step #4**

**Work with MULTIPLICATION or DIVISION, whichever comes first, from LEFT to RIGHT.**

**Step #5**

**Work with ADDITION or SUBTRACTION, whichever comes first, from LEFT to RIGHT.**

**The Funnel Method**

1. **Write the expression horizontally.**
2. **Determine the operation that should be done first, following the PEMDAS rule, and underline it.**
3. **Perform the said operation and rewrite the expression the way it appeared in the original expression.**
4. **Underline the next operation following the MDAS rule.**
5. **Continue performing the operations one at a time, rewrite the expression after each step until you’ve completed all the operations… and you have one value left.**

Fill Me Up!

Evaluate the given numerical expression by filling up the Funnel with the correct order of operations.

$$5×(10-2)÷(11+9)$$



Task Cards

Evaluate the following numerical expressions. Match the pink card with the blue card.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
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| --- |
| **1.** |
| $$9+\left(12÷4\right)×(3-2)+5$$ |

 |  |

|  |
| --- |
| **a.** |
| 6 |

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|  |  |  |
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|  |
| --- |
| **2.** |
| $ $$$\left[6×\left(4+2\right)÷12\right]-3$$ |

 |  |

|  |
| --- |
| **b.** |
| 1 |

 |

|  |
| --- |
| **3.** |
| $$\left[\left(5+4\right)×3\right]÷9×(4-2)$$ |

|  |
| --- |
| **c.** |
| 2 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

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| --- |
| **4.** |
| $$7+\left[24÷\left(3×2\right)+3\right]-4$$ |

 |  |

|  |
| --- |
| **d.** |
| 17 |

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|  |
| --- |
| **5.** |
| $$\left(10÷5\right)+\left(12÷6\right)-(8÷4)$$ |

 |  |

|  |
| --- |
| **e.** |
| 0 |

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|  |
| --- |
| **6.** |
| $$\left[3×\left(18÷3\right)-10\right]-[14÷\left(12÷6\right)]$$ |

|  |
| --- |
| **f.** |
| 10 |

|  |  |
| --- | --- |
|  | **ANSWER KEY** |
|  | **Situation 1** |  |
|  | **1.**  |  |
|  |  |  |
|  |  |  |
|  | **Task Cards** |  |
|  | **1.**  | **d** |
|  | **2.** | **e** |
|  | **3.** | **a** |
|  | **4.** | **f** |
|  | **5.**  | **c** |
|  | **6.** | **b** |