

Numerical Expressions & Patterns Review and Practice - Worksheet

Name: _____

Date: _____

Grade: 5 Topic: Numerical Expressions & Patterns Review

SECTION A - CONCEPT PRACTICE

1. Translate into a numerical expression: **Add 10 and 5, then divide by 3.**

2. Evaluate: **$15 - [2 \times (3 + 1)]$.**

3. What does PEMDAS tell you to do first in the expression **$8 + (12 \div 4) \times 2$** ?

4. Rule X adds 1 starting at 0. Rule Y adds 4 starting at 0. What is the relationship between the two patterns?

5. In the ordered pair **(3, 8)**, which number tells you how far to move along the x-axis?

SECTION B - SKILL DEVELOPMENT

1. Translate: **Subtract 4 from 10, then multiply by 2.**

2. Evaluate: **$30 - [(2 + 4) \times 3]$.**

3. Evaluate: **$\{[(5 \times 2) - 4] \div 3\} + 10$.**

4. Rule X: Add 3, starting at 0. Rule Y: Add 6, starting at 0. Write the first four terms of each and the corresponding ordered pairs.

5. Rule A adds 2 starting at 0. Rule B adds 2 starting at 5. Write the first four terms of each and state the relationship between the patterns.

SECTION C - APPLICATION & CHALLENGE

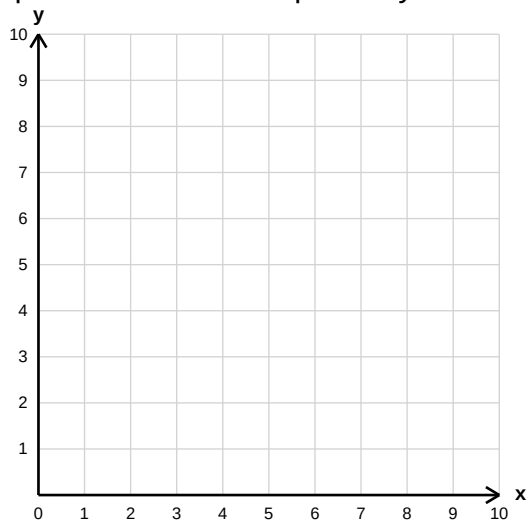
Use the coordinate grid for Question 4. Remember: move across the x-axis first, then move up the y-axis.

1. Evaluate: $50 - [(8 \div 2) \times 4]$. Show the order of your steps.

2. Translate: **Add 7 and 3, multiply by 4, then subtract 5.**

3. Rule X: Add 5, starting at 0. Rule Y: Add 15, starting at 0. Write the first three ordered pairs and state the relationship between X and Y.

4. Plot the ordered pairs (0, 0), (2, 10), (4, 20), (6, 30), and (8, 40) on the coordinate grid. Connect the points. Describe the pattern you see.



5. Add parentheses to make this equation true: $12 - 4 \times 2 = 16$. Then evaluate your new expression.
