

SPARK Hybrid Education Center

Mathematics | Upper Level | Week 1

Real Numbers, Properties & Algebraic Expressions

Name: _____ Date: _____ Period: _____

Practice Problems

1. Classify each number: -3 , $\sqrt{9}$, π , $5/7$, 0 , -2.5 (natural/integer/rational/irrational)

2. Evaluate $2a^2 - 3b + 4$ when $a = 3$, $b = -1$.

3. Simplify: $6(x + 4) - 3(2x - 1)$

4. Simplify: $5y - 3(y - 2) + 7$

5. Translate: 'Four more than twice the quantity of x minus three.'

6. Translate: 'The quotient of a number and five, decreased by eight.'

7. Evaluate $-2x^3 + x$ when $x = -1$.

8. Name the property: $(3 + x) + y = 3 + (x + y)$

9. Simplify: $-4(3 - 2x) + 6(x - 1)$

10. CHALLENGE: If $5a - 2b = 14$ and $a = 4$, find b .

ANSWER KEY (Teacher Copy - Cut before distributing)

1. Integer; natural/integer/rational ($\sqrt{9}=3$); irrational; rational; whole/integer/rational; rational
2. 22
3. $6x + 24 - 6x + 3 = 27$
4. $2y + 13$
5. $2(x - 3) + 4$
6. $n/5 - 8$
7. 3
8. Associative Property of Addition
9. $14x - 18$
10. $b = 3$

