Secondary 1 Mathematics · Practice Worksheet · tutorinmontreal.ca

Whole Numbers and the Four Operations

Name: _____ Date: _____

Concepts

- Adding Whole Numbers
- Addition (theory)
- Approximating the Answer of an Operation
- Arithmetic (theory)
- Division
- Mental Math
- Operations (theory)
- Properties of Operations
- Subtraction
- The Order of Operations

Adding Whole Numbers

1. Calculate each sum, showing the columns you carried.

a) $4\,812 + 3\,271$

b) $12\,405 + 8\,796 + 250$

c) Over one weekend, a new skatepark in Rimouski welcomed 3 250 visitors on Friday, 4 815 on Saturday and 2 940 on Sunday. How many visitors did it welcome in all?

Addition

2. Answer using the correct vocabulary of addition.

a) In $486 + 157 = 643$, name each of the three numbers.

b) Naïm claims that the sum of two whole numbers can be smaller than one of the numbers being added. Give an example, or explain why it is impossible.

c) Write an addition with three terms whose sum is $1\,000$ and in which one of the terms is 0.

Approximating the Answer of an Operation

3. Estimate each result. Do not calculate the exact answer.

a) $4\,812 + 3\,271$, rounding each number to the nearest hundred.

b) 61×397, rounding 61 to the nearest ten and 397 to the nearest hundred.

c) $3\,964 \div 39$, rounding $3\,964$ to the nearest thousand and 39 to the nearest ten.

Arithmetic

4. Each line describes a calculation in words. Write it as a numerical expression, calculate it, then name both the operation used and the name given to its result.

a) the difference between 90 and 34

b) the product of 12 and 25

c) the quotient of 144 by 6

d) the sum of 48, 52 and 100

Division

5. Divide.

a) $847 \div 6$ — give the quotient and the remainder.

b) $2\,016 \div 24$

c) Check your answer to a) with one multiplication and one addition, and write that check as a single equation.

Mental Math

6. Calculate mentally, then write down the strategy you used.

a) $998 + 457$

b) $5\,000 - 1\,999$

c) 25×36

d) 48×5

Operations

7. For each situation, name the single operation you would use and say why. Do not calculate anything.

a) A snow-clearing route is shared equally between 4 trucks; you know the total length of the route and want the length one truck covers.

b) You know how many goals each of two teams scored, and you want to know how many more goals the winner scored.

c) An arena has 18 rows of 24 seats and you want the number of seats.

d) Three deliveries of hockey pucks arrive and you want the total stock.

Finally, pair the four operations you named into two pairs of operations that undo each other.

Properties of Operations

8. Each calculation below is done in an unusual order to make it easier. Name the property of the operations that makes each rearrangement legitimate.

a) $37 + 68 + 63 = 37 + 63 + 68 = 100 + 68 = 168$

b) $4 \times 97 = 4 \times (100 - 3) = 400 - 12 = 388$

c) $25 \times (8 \times 7) = (25 \times 8) \times 7 = 200 \times 7 = 1\,400$

d) $156 \times 1 = 156$ and $156 + 0 = 156$

Subtraction

9. Subtract.

a) $8\,003 - 2\,476$, then check your answer with an addition.

b) $1\,250 - 386 - 214$

c) A player starts a game with 1 500 coins, then spends 675 on a new board and 250 on wheels. How many coins are left?

The Order of Operations

10. Evaluate, showing the order in which you worked.

a) $24 - 3 \times 5 + 8 \div 2$

b) $(18 + 12) \div 6 \times 2$

c) $5 + 2 \times (7 - 3)^2$

d) $36 \div 6 \div 3$

Synthesis — drawing on several sheets in this topic

11. A school canteen in Sherbrooke receives 6 crates of apples, with 48 apples in each crate. While unpacking, the staff find 17 bruised apples and throw them out. The good apples are then shared equally among the school's 7 homeroom classes.

a) Write the number of good apples as a single numerical expression.

b) Evaluate it, saying which operation you carried out first and why.

c) How many apples does each class get, and how many are left over? Check that division with one multiplication and one addition.