// Define sub-functions for each operation

global proc float add(float $num1, float $num2) {

return $num1 + $num2;

}

global proc float subtract(float $num1, float $num2) {

return $num1 - $num2;

}

global proc float divide(float $num1, float $num2) {

if ($num2 != 0) {

return $num1 / $num2;

} else {

error("Division by zero is not allowed.");

}

}

global proc float power(float $base, float $exponent) {

return pow($base, $exponent);

}

global proc float mean(float $nums[]) {

float $sum = 0;

int $count = size($nums);

if ($count == 0) {

error("Array is empty.");

}

for ($num in $nums) {

$sum += $num;

}

return $sum / $count;

}

global proc float median(float $nums[]) {

int $count = size($nums);

if ($count == 0) {

error("Array is empty.");

}

// Sort the array

float $sortedArray[] = `sort $nums`;

// Calculate the median

if ($count % 2 == 0) {

int $middleIndex1 = ($count / 2) - 1;

int $middleIndex2 = $count / 2;

return ($sortedArray[$middleIndex1] + $sortedArray[$middleIndex2]) / 2;

} else {

int $middleIndex = ($count - 1) / 2;

return $sortedArray[$middleIndex];

}

}

// Main calculator function that takes an operation and an array of parameters

global proc float calculator(string $operation, float $params[]) {

if ($operation == "add") {

return add($params[0], $params[1]);

} else if ($operation == "subtract") {

return subtract($params[0], $params[1]);

} else if ($operation == "divide") {

return divide($params[0], $params[1]);

} else if ($operation == "power") {

return power($params[0], $params[1]);

} else if ($operation == "mean") {

return mean($params);

} else if ($operation == "median") {

return median($params);

} else {

error("Invalid operation.");

}

}

// Example usage

string $operation = "mean"; // Change this to the desired operation

float $parameters[] = {5.0, 3.0, 7.0, 9.0, 4.0}; // Change these values as needed - most only use first 2 mean/median uses all 5

float $result = calculator($operation, $parameters);

print("Result: " + $result + "\n");