**LAB 1**

**package** calculateSum;

**public** **class** main {

**public** **static** **void** main(String[] args) {

System.***out***.println(*calculateSum*(100));

}

**public** **static** **int** calculateSum (**int** n) {

**int** sum = 0;

**for** (**int** i = 1; i< n; i++) {

**if**(i % 3 == 0 || i % 5 == 0) {

sum += i;

}

}

**return** sum;

}

}

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**package** differenec;

**public** **class** main {

**public** **static** **void** main(String[] args) {

System.***out***.println(*calculateDifference*(4));

}

**public** **static** **int** calculateDifference(**int** n) {

**int** sum = 0;

**for** (**int** i =0 ; i<= n; i++ ) {

sum += i;

}

**int** power = 0;

**for** (**int** i =1 ; i<= n; i++ ) {

power += i\*i;

}

**return** power – (sum\*sum);

}

}

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**package** checkNumber;

**public** **class** main {

**public** **static** **void** main(String[] args) {

System.***out***.println(*checkNumber*(1234));

}

**public** **static** **boolean** checkNumber(**int** number) {

**boolean** result =**false**;

**int** current = number% 10;

number /= 10;

**while** (number > 0) {

**if**(current <= number % 10) {

result = **true**; 08

**break**;

}

current = number% 10;

number /= 10;

}

**if** (result) {

**return** **false**;

}

**else** {

**return** **true**;

}

}

}

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**package** power\_of\_2;

**public** **class** main {

**public** **static** **void** main(String[] args) {

System.***out***.println(*Number*(9));

}

**public** **static** **boolean** checkNumber(**int** n) {

**if** (n == 1)

**return** **true**;

**else** **if** (n % 2 != 0 || n ==0)

**return** **false**;

**return** *checkNumber*(n / 2);

}

**public** **static** **boolean** Number(**int** n) {

**if**(*checkNumber*(n) == **true**) {

**return** **true**;

}

**else** {

**return** **false**;

}

}

}