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Homework #5

1. Divide by Two

public void divideByTwo() {

\_root = \_root.\_left;

}

1. Divide by Power of Two

public void divideByPowerTwo(int num) {

int n = (int)(Math.*log*(num) / Math.*log*(2));

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

\_root = \_root.\_left;

}

}

1. Recursive Base 10

public int getBase10Recursive() {

return getBase10RecursiveHelper(\_root, 0);

}

public int getBase10RecursiveHelper(TreeNode<Integer> node, int power) {

if (node != null) {

return (int) ((Math.*pow*(2, power)) \* node.\_right.\_data) + getBase10RecursiveHelper(node.\_left,power++);

}

return 0;

}

1. Iterative Base 10

public int getBase10Iterative() {

int sum = 0;

int power = 0;

TreeNode<Integer> node = \_root;

while (node != null) {

sum += (Math.*pow*(2, power)) \* node.\_right.\_data;

power++;

node = node.\_left;

}

return sum;

}