

Count the nodes at level n in a binary tree

sample main:

```

BSTree T;
T.buildTree(...);
cout << T.numNodesAtLevel(4) << endl;

```

Technique #1, count up to level n

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```

int BSTree::numNodesAtLevel(int n) const {
    int level = 0;
    return levelHelper(root, level, n);
}

int BSTree::levelHelper(Node* current, int level, int n) const {
    if (current == NULL)
        return 0;
    if (level == n)
        return 1;
    level++;
    return levelHelper(current->left, level, n)
        + levelHelper(current->right, level, n);
}

```

Technique #2, count down from level n

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```

int BSTree::numNodesAtLevel(int n) const {
    return levelHelper(root, n);
}

int BSTree::levelHelper(Node* current, int n) const {
    if (current == NULL)
        return 0;
    if (n == 0)
        return 1;
    return levelHelper(current->left, n-1)
        + levelHelper(current->right, n-1);
}

```