

# Mini Project 3: Old Person Translator

(AVL, Balanced Binary Search Tree)

(100 pts, Due THURSDAY, APRIL 22 – NOTE THAT IT IS DUE ON THURSDAY!)

**Please Note:** This lab involves a relatively short amount of code and a great deal of cursing, coffee, and advil. Please plan accordingly.

**Time Commitment:** Approx 10-12 hours

**Difficulty Level:** 4.5 (out of 5 – it's not horrible, but it's probably the most challenging programming in this class - you can do this!!!!)

This assignment should definitely be started early and spread out, because it is sometimes best to walk away from a frustration and think about it a bit.

The bad and good news is that this is the most challenging project of the semester! So if you enjoy being challenged, here you go! If you don't, push yourself to get through this one and the next one will be more your style!

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## Part 1 (10 pts)

Name the identified methods in AVL.cpp (see the AVL.cpp file)

## Part 2 (8 pts)

Modify the insert and find method as follows:

Insert: (4 pts)

add a call to the setHeights method at the appropriate place(s) so that the newly inserted node's ancestors' heights are adjusted appropriately

Find: (4 pts)

add a ct (count) variable so that you keep track of how many comparisons you must make in order to find an abbreviation in the tree.

## Part 2b-ish (0 pts)

(this isn't for points, but you have to do it): In the AVL.cpp file, move the methods you named in part 1 below the constructors.

## Part 3 (24 pts):

In the AVL.cpp file, write the following methods as described in AVL.cpp:

getBalance (6pts)

This method determines the balance of a node and returns that balance

rotateRight (6 pts)

This method rotates right around the node sent in as the input parameter, and returns the node rotated up (the new root of the subtree) Note that most likely it sets the heights of the node rotated down a level and then at least starts the process of setting the height of that node's ancestors. It also most likely reattaches the newly rotated up node to the rest of the tree, although you could also do that in setheights.

rotateLeft (6 pts)

This method rotates left around the node sent in as the input parameter, and returns the node rotated up (the new root of the subtree) Note that most likely it sets the heights of the node rotated down a level and then at least starts the process of setting the height of that node's ancestors. It also most likely reattaches the newly rotated up node to the rest of the tree, although you could also do that in setheights.

setHeight (6 pts)

This method sets the height of tmp and then of all the ancestors of tmp. It stops when the height of a node does not change. Note that this method most likely calls getBalance and possibly the rotate methods, and may even set the newly rotated up node's parent attachment, although you could do that in the rotate method.

## Part 4 (Running your code!)(44 pts)

For this part you will be testing each of your rotations to make sure you have it working. If you want to double-check as you go, I either hand-write out the tree as I'm going, or when my brain is a bit fried, I use this to check:

<https://www.cs.usfca.edu/~galles/visualization/AVLtree.html>

### Testing your left rotations (11 pts):

In MainPhrase.cpp, uncomment out part 1 and run the project. This part tests the rotate left method, and your output should look like the following:

```
readFile: AYDY:Are You Done Yet?  
made new root  
readFile: BAC:Back At Computer  
readFile: CMIW:Correct Me If I'm Wrong  
    Rot Left around AYDY  
readFile: DTS:Don't Think So  
readFile: EOD:End Of Discussion  
    Rot Left around CMIW  
readFile: F2F:Face To Face  
    Rot Left around BAC  
readFile: GMTA:Great Minds Think Alike  
    Rot Left around EOD  
readFile: HBY:How About You?  
readFile: IYAM:If You Ask Me  
    Rot Left around GMTA
```

\*\*\*\*\*

Preorder:

```
Printing PreOrder:  
DTS: Don't Think So (4)  
BAC: Back At Computer (2)  
AYDY: Are You Done Yet? (1)  
CMIW: Correct Me If I'm Wrong (1)  
F2F: Face To Face (3)  
EOD: End Of Discussion (1)  
HBY: How About You? (2)  
GMTA: Great Minds Think Alike (1)  
IYAM: If You Ask Me (1)
```

\*\*\*\*\*

Inorder:

```
Printing In Order:  
AYDY: Are You Done Yet? (1)  
BAC: Back At Computer (2)  
CMIW: Correct Me If I'm Wrong (1)  
DTS: Don't Think So (4)  
EOD: End Of Discussion (1)  
F2F: Face To Face (3)  
GMTA: Great Minds Think Alike (1)  
HBY: How About You? (2)  
IYAM: If You Ask Me (1)
```

\*\*\*\*\*

Postorder:

```
Printing PostOrder:  
AYDY: Are You Done Yet? (1)  
CMIW: Correct Me If I'm Wrong (1)
```

```
BAC: Back At Computer (2)
EOD: End Of Discussion (1)
GMTA: Great Minds Think Alike (1)
IYAM: If You Ask Me (1)
HBY: How About You? (2)
F2F: Face To Face (3)
DTS: Don't Think So (4)
```

```
*****
```

```
Clearing Tree:
Abbr: AYDY: Are You Done Yet? (1)
Deleting AYDY: Are You Done Yet?
Abbr: CMIIW: Correct Me If I'm Wrong (1)
Deleting CMIIW: Correct Me If I'm Wrong
Abbr: BAC: Back At Computer (2)
Deleting BAC: Back At Computer
Abbr: EOD: End Of Discussion (1)
Deleting EOD: End Of Discussion
Abbr: GMTA: Great Minds Think Alike (1)
Deleting GMTA: Great Minds Think Alike
Abbr: IYAM: If You Ask Me (1)
Deleting IYAM: If You Ask Me
Abbr: HBY: How About You? (2)
Deleting HBY: How About You?
Abbr: F2F: Face To Face (3)
Deleting F2F: Face To Face
Abbr: DTS: Don't Think So (4)
Deleting DTS: Don't Think So
```

### Testing your right rotations (11 pts):

In MainPhrase.cpp, comment out part 1 and uncomment part 2 and run the project. This part tests the rotate right method, and your output should look like the following:

```
readFile: IGI:I Get It
made new root
readFile: HBN:How About Now
readFile: GLWT:Good Luck With That
    Rot Right around IGI
readFile: FYA:For Your Amusement
readFile: ELOL:Evil Laugh Out Loud
    Rot Right around GLWT
readFile: DLN:Don't Look Now
    Rot Right around HBN
readFile: CMEO:Crying My Eyes Out
    Rot Right around ELOL
readFile: BAGL:Bust A Gut Laughing
readFile: AQAP:As Quickly As Possible
    Rot Right around CMEO
```

```
*****
```

```
Preorder:
```

```
Printing PreOrder:
FYA: For Your Amusement (4)
DLN: Don't Look Now (3)
BAGL: Bust A Gut Laughing (2)
AQAP: As Quickly As Possible (1)
CMEO: Crying My Eyes Out (1)
ELOL: Evil Laugh Out Loud (1)
HBN: How About Now (2)
GLWT: Good Luck With That (1)
```

IGI: I Get It (1)

\*\*\*\*\*

Inorder:

Printing In Order:

AQAP: As Quickly As Possible (1)  
BAGL: Bust A Gut Laughing (2)  
CMEO: Crying My Eyes Out (1)  
DLN: Don't Look Now (3)  
ELOL: Evil Laugh Out Loud (1)  
FYA: For Your Amusement (4)  
GLWT: Good Luck With That (1)  
HBN: How About Now (2)  
IGI: I Get It (1)

\*\*\*\*\*

Postorder:

Printing PostOrder:

AQAP: As Quickly As Possible (1)  
CMEO: Crying My Eyes Out (1)  
BAGL: Bust A Gut Laughing (2)  
ELOL: Evil Laugh Out Loud (1)  
DLN: Don't Look Now (3)  
GLWT: Good Luck With That (1)  
IGI: I Get It (1)  
HBN: How About Now (2)  
FYA: For Your Amusement (4)

\*\*\*\*\*

Clearing Tree:

Abbr: AQAP: As Quickly As Possible (1)  
Deleting AQAP: As Quickly As Possible  
Abbr: CMEO: Crying My Eyes Out (1)  
Deleting CMEO: Crying My Eyes Out  
Abbr: BAGL: Bust A Gut Laughing (2)  
Deleting BAGL: Bust A Gut Laughing  
Abbr: ELOL: Evil Laugh Out Loud (1)  
Deleting ELOL: Evil Laugh Out Loud  
Abbr: DLN: Don't Look Now (3)  
Deleting DLN: Don't Look Now  
Abbr: GLWT: Good Luck With That (1)  
Deleting GLWT: Good Luck With That  
Abbr: IGI: I Get It (1)  
Deleting IGI: I Get It  
Abbr: HBN: How About Now (2)  
Deleting HBN: How About Now  
Abbr: FYA: For Your Amusement (4)  
Deleting FYA: For Your Amusement

Testing your right-left rotations (11 pts):

In MainPhrase.cpp, comment out part 1 and part 2 and uncomment out part 3 and run the project. This part tests the rotate right method, and your output should look like the following:

```
readFile: DUR:Do You Remember?  
made new root  
readFile: NMW:No Matter What  
readFile: FYT:For Your Time  
    Rot Left around DUR  
    Rot right 1st aroundNMW  
readFile: PIBE:Play It By Ear
```

```

readFile: GOAT:Greatest Of All Time
readFile: MTYK:More Than You Know
    Rot Left around FYT
        Rot right 1st aroundNMW
readFile: HHIS:Hanging Head In Shame
readFile: KHYF:Know How You Feel
    Rot Right around MTYK
        Rot left 1st around HHIS
readFile: LAM:Leave A Message
    Rot Right around NMW
        Rot left 1st around KHYF

```

\*\*\*\*\*

Preorder:

```

Printing PreOrder:
GOAT: Greatest Of All Time (4)
FYT: For Your Time (2)
DUR: Do You Remember? (1)
MTYK: More Than You Know (3)
KHYF: Know How You Feel (2)
HHIS: Hanging Head In Shame (1)
LAM: Leave A Message (1)
NMW: No Matter What (2)
PIBE: Play It By Ear (1)

```

\*\*\*\*\*

Inorder:

```

Printing In Order:
DUR: Do You Remember? (1)
FYT: For Your Time (2)
GOAT: Greatest Of All Time (4)
HHIS: Hanging Head In Shame (1)
KHYF: Know How You Feel (2)
LAM: Leave A Message (1)
MTYK: More Than You Know (3)
NMW: No Matter What (2)
PIBE: Play It By Ear (1)

```

\*\*\*\*\*

Postorder:

```

Printing PostOrder:
DUR: Do You Remember? (1)
FYT: For Your Time (2)
HHIS: Hanging Head In Shame (1)
LAM: Leave A Message (1)
KHYF: Know How You Feel (2)
PIBE: Play It By Ear (1)
NMW: No Matter What (2)
MTYK: More Than You Know (3)
GOAT: Greatest Of All Time (4)

```

\*\*\*\*\*

Clearing Tree:

```

Abbr: DUR: Do You Remember? (1)
Deleting DUR: Do You Remember?
Abbr: FYT: For Your Time (2)
Deleting FYT: For Your Time
Abbr: HHIS: Hanging Head In Shame (1)
Deleting HHIS: Hanging Head In Shame
Abbr: LAM: Leave A Message (1)
Deleting LAM: Leave A Message

```

```

Abbr: KHYF: Know How You Feel (2)
Deleting KHYF: Know How You Feel
Abbr: PIBE: Play It By Ear (1)
Deleting PIBE: Play It By Ear
Abbr: NMW: No Matter What (2)
Deleting NMW: No Matter What
Abbr: MTYK: More Than You Know (3)
Deleting MTYK: More Than You Know
Abbr: GOAT: Greatest Of All Time (4)
Deleting GOAT: Greatest Of All Time

```

Testing your left-right rotations (11 pts):

In MainPhrase.cpp, comment out part 1, part 2 and part 3 and uncomment out part 4 and run the project. This part tests the rotate right method, and your output should look like the following:

```

readFile: PICNIC:Problem In Chair Not In Computer
made new root
readFile: EOD:End Of Discussion
readFile: MPE:My Point Exactly
    Rot Right around PICNIC
        Rot left 1st around EOD
readFile: BBIAS:Be Back In A Sec
readFile: JK:Just Kidding
readFile: L8R:Later
    Rot Right around MPE
        Rot left 1st around EOD
readFile: CMU:Cracks Me Up
    Rot Right around EOD
        Rot left 1st around BBIAS
readFile: DLN:Don't Look Now
readFile: FYK:For Your Knowledge
readFile: ARK:Act of Random Kindness
readFile: GOAT:Greatest Of All Time
    Rot Right around JK
        Rot left 1st around CMU

```

\*\*\*\*\*

Preorder:

```

Printing PreOrder:
EOD: End Of Discussion (4)
CMU: Cracks Me Up (3)
BBIAS: Be Back In A Sec (2)
ARK: Act of Random Kindness (1)
DLN: Don't Look Now (1)
JK: Just Kidding (3)
FYK: For Your Knowledge (2)
GOAT: Greatest Of All Time (1)
MPE: My Point Exactly (2)
L8R: Later (1)
PICNIC: Problem In Chair Not In Computer (1)

```

\*\*\*\*\*

Inorder:

```

Printing In Order:
ARK: Act of Random Kindness (1)
BBIAS: Be Back In A Sec (2)
CMU: Cracks Me Up (3)
DLN: Don't Look Now (1)
EOD: End Of Discussion (4)
FYK: For Your Knowledge (2)
GOAT: Greatest Of All Time (1)
JK: Just Kidding (3)
L8R: Later (1)

```

MPE: My Point Exactly (2)  
PICNIC: Problem In Chair Not In Computer (1)

\*\*\*\*\*

Postorder:

Printing PostOrder:  
ARK: Act of Random Kindness (1)  
BBIAS: Be Back In A Sec (2)  
DLN: Don't Look Now (1)  
CMU: Cracks Me Up (3)  
GOAT: Greatest Of All Time (1)  
FYK: For Your Knowledge (2)  
L8R: Later (1)  
PICNIC: Problem In Chair Not In Computer (1)  
MPE: My Point Exactly (2)  
JK: Just Kidding (3)  
EOD: End Of Discussion (4)

\*\*\*\*\*

Clearing Tree:  
Abbr: ARK: Act of Random Kindness (1)  
Deleting ARK: Act of Random Kindness  
Abbr: BBIAS: Be Back In A Sec (2)  
Deleting BBIAS: Be Back In A Sec  
Abbr: DLN: Don't Look Now (1)  
Deleting DLN: Don't Look Now  
Abbr: CMU: Cracks Me Up (3)  
Deleting CMU: Cracks Me Up  
Abbr: GOAT: Greatest Of All Time (1)  
Deleting GOAT: Greatest Of All Time  
Abbr: FYK: For Your Knowledge (2)  
Deleting FYK: For Your Knowledge  
Abbr: L8R: Later (1)  
Deleting L8R: Later  
Abbr: PICNIC: Problem In Chair Not In Computer (1)  
Deleting PICNIC: Problem In Chair Not In Computer  
Abbr: MPE: My Point Exactly (2)  
Deleting MPE: My Point Exactly  
Abbr: JK: Just Kidding (3)  
Deleting JK: Just Kidding  
Abbr: EOD: End Of Discussion (4)  
Deleting EOD: End Of Discussion

And NOW... Testing the Translator!!! (14 pts):

In MainPhrase.cpp, comment out part 1, part 2, part 3 and part 4 and uncomment out part 5. Make sure you test with the following:

- A) Find the following Acronyms: (Note that I have my output for finding these acronyms (in debug mode) below):
  - HAGN
  - YMBJ
  - GOAT
  - GB
  - TMNJ
- B) Translate the following sentences (again, my output is below):
  - BTW E1 must BYOC 2moro CU L8R
  - LBH that's TTFW KWIS JMHO

- IMHO the PEBCAC LOL
- AFAICT this program AGH but YMMV GLTY
- WEG I'll TCB and TBL with POIDH

C) An In-order Traversal (I've included partial output for this below)

```
*****  
/* My Output For finding the Acronyms (5 pts): */  
*****
```

Choose Option:  
 a translate sentence  
 b find acronym  
 c add an acronym and definition  
 d print tree  
 q quit

b

Enter Acronym:

HAGN

MBA and HAGN  
 going left  
 HAGN and HAGN  
 found in 2

Abbr: HAGN: Have A Good Night (12)

```
*****
```

Choose Option:  
 a translate sentence  
 b find acronym  
 c add an acronym and definition  
 d print tree  
 q quit

b

Enter Acronym:

YMBJ

MBA and YMBJ  
 going right  
 PVC and YMBJ  
 going right  
 TIAD and YMBJ  
 going right  
 WC and YMBJ  
 going right  
 WTHRU and YMBJ  
 going right  
 XLNT and YMBJ  
 going right  
 YHGASP and YMBJ  
 going right  
 YOLO and YMBJ  
 going left  
 YMBJ and YMBJ  
 found in 9

Abbr: YMBJ: You Must Be Joking (6)

```
*****
```

Choose Option:  
 a translate sentence  
 b find acronym  
 c add an acronym and definition  
 d print tree  
 q quit

b

Enter Acronym:

GOAT

MBA and GOAT  
 going left

```
HAGN and GOAT
going left
CYBI and GOAT
going right
GBML and GOAT
going right
GOAT and GOAT
  found in 5
Abbr: GOAT: Greatest Of All Time (8)
```

```
*****
```

```
Choose Option:
```

- a translate sentence
- b find acronym
- c add an acronym and definition
- d print tree
- q quit

```
b
```

```
Enter Acronym:
```

```
GB
```

```
MBA and GB
going left
HAGN and GB
going left
CYBI and GB
going right
GBML and GB
going left
DOA and GB
going right
EOT and GB
going right
ETW and GB
going right
FYM and GB
going right
GA and GB
going right
GB and GB
  found in 10
Abbr: GB: Great Britain Gigabyte (4)
```

```
*****
```

```
Choose Option:
```

- a translate sentence
- b find acronym
- c add an acronym and definition
- d print tree
- q quit

```
b
```

```
Enter Acronym:
```

```
TMNT
```

```
MBA and TMNT
going right
PVC and TMNT
going right
TIAD and TMNT
going right
WC and TMNT
going left
TTO and TMNT
going left
TOFT and TMNT
going left
TMI and TMNT
going right
TMTOWTDI and TMNT
going left
TMN and TMNT
```

```

going right
TMRW and TMNT
going left
TMP and TMNT
going left
TMNT and TMNT
  found in 12
Abbr: TMNT: Teenage Mutant Ninja Turtles (1)

*****
Choose Option:
  a  translate sentence
  b  find acronym
  c  add an acronym and definition
  d  print tree
  q  quit
b
Enter Acronym:
YGTR
MBA and YGTR
going right
PVC and YGTR
going right
TIAD and YGTR
going right
WC and YGTR
going right
WTHRU and YGTR
going right
XLNT and YGTR
going right
YHGASP and YGTR
going left
YGG and YGTR
going right
YGTBKM and YGTR
going right
YHBT and YGTR
going left
YGTR and YGTR
  found in 11
Abbr: YGTR: You Got That Right (2)
*****
```

```

/*****************************************/
/* My Output For finding the Sentences(5 pts): */
/*****************************************/
```

```

*****
Choose Option:
  a  translate sentence
  b  find acronym
  c  add an acronym and definition
  d  print tree
  q  quit
a
Enter sentence to translate (you old person):
BTW E1 must BYOC 2moro CU L8R
start is 0
MBA and BTW
going left
HAGN and BTW
going left
CYBI and BTW
going left
BBC and BTW
```

going right  
BME and BTW  
going right  
CCNA and BTW  
going left  
BNIB and BTW  
going right  
BOED and BTW  
going right  
CC and BTW  
going left  
BRB and BTW  
going right  
BT and BTW  
going right  
BTW and BTW  
    found in 12  
By The Way  
MBA and E1  
going left  
HAGN and E1  
going left  
CYBI and E1  
going right  
GBML and E1  
going left  
DOA and E1  
going right  
EOT and E1  
going left  
DTM and E1  
going right  
EBT and E1  
going left  
DTTC and E1  
going right  
DWBH and E1  
going right  
EBM and E1  
going left  
E1 and E1  
    found in 12  
By The Way Everyone  
MBA and must  
going right  
PVC and must  
going right  
TIAD and must  
going right  
WC and must  
going right  
WTHRU and must  
going right  
XLNT and must  
going right  
YHGASP and must  
going right  
YOLO and must  
going right  
YTM and must  
going right  
YUM and must  
going right  
YWIMC and must  
going right  
bet and must  
going right  
dope and must  
going right

fire and must  
going right  
No translation for must  
By The Way Everyone must  
MBA and BYOC  
going left  
HAGN and BYOC  
going left  
CYBI and BYOC  
going left  
BBC and BYOC  
going right  
BME and BYOC  
going right  
CCNA and BYOC  
going left  
BNIB and BYOC  
going right  
BOED and BYOC  
going right  
CC and BYOC  
going left  
BRB and BYOC  
going right  
BT and BYOC  
going right  
BTW and BYOC  
going right  
BYOC and BYOC  
found in 13  
By The Way Everyone must Bring Your Own Computer  
MBA and 2moro  
going left  
HAGN and 2moro  
going left  
CYBI and 2moro  
going left  
BBC and 2moro  
going left  
AGT and 2moro  
going left  
ADAD and 2moro  
going left  
AAT and 2moro  
going left  
AAF and 2moro  
going left  
2day and 2moro  
going right  
AAB and 2moro  
going left  
2nite and 2moro  
going left  
2moro and 2moro  
found in 12  
By The Way Everyone must Bring Your Own Computer Tomorrow  
MBA and CU  
going left  
HAGN and CU  
going left  
CYBI and CU  
going left  
BBC and CU  
going right  
BME and CU  
going right  
CCNA and CU  
going right  
CMIYC and CU

```

going right
CO and CU
going right
CRBT and CU
going right
CWTSY and CU
going left
CU and CU
  found in 11
By The Way Everyone must Bring Your Own Computer Tomorrow See You
MBA and L8R
going left
HAGN and L8R
going right
ILYAAF and L8R
going right
KIP and L8R
going right
LOL and L8R
going left
LAT and L8R
going left
KWIS and L8R
going right
LAMN and L8R
going left
L8R and L8R
  found in 9
By The Way Everyone must Bring Your Own Computer Tomorrow See You Later
By The Way Everyone must Bring Your Own Computer Tomorrow See You Later

```

\*\*\*\*\*

Choose Option:

- a translate sentence
- b find acronym
- c add an acronym and definition
- d print tree
- q quit

a

Enter sentence to translate (you old person):

LBH that's TTFW KWIS JMHO

start is 0

MBA and LBH

going left

HAGN and LBH

going right

ILYAAF and LBH

going right

KIP and LBH

going right

LOL and LBH

going left

LAT and LBH

going right

LHO and LBH

going left

LDR and LBH

going left

LCD and LBH

going left

LBH and LBH

found in 10

Let's Be Honest

MBA and that's

going right

PVC and that's

going right

TIAD and that's

going right

WC and that's  
going right  
WTHRU and that's  
going right  
XLNT and that's  
going right  
YHGASP and that's  
going right  
YOLO and that's  
going right  
YTM and that's  
going right  
YUM and that's  
going right  
YWIMC and that's  
going right  
bet and that's  
going right  
dope and that's  
going right  
fire and that's  
going right  
No translation for that's  
Let's Be Honest that's  
MBA and TTFW  
going right  
PVC and TTFW  
going right  
TIAD and TTFW  
going right  
WC and TTFW  
going left  
TTO and TTFW  
going left  
TOFT and TTFW  
going right  
TPAM and TTFW  
going right  
TTFW and TTFW  
found in 8  
Let's Be Honest that's Too Tacky For Words  
MBA and KWIS  
going left  
HAGN and KWIS  
going right  
ILYAAF and KWIS  
going right  
KIP and KWIS  
going right  
LOL and KWIS  
going left  
LAT and KWIS  
going left  
KWIS and KWIS  
found in 7  
Let's Be Honest that's Too Tacky For Words Know What I'm Saying?  
MBA and JMHO  
going left  
HAGN and JMHO  
going right  
ILYAAF and JMHO  
going right  
KIP and JMHO  
going left  
ITMA and JMHO  
going right  
JBY and JMHO  
going right  
JMO and JMHO

```
going left
JK and JMHO
going right
JLYK and JMHO
going right
JMA and JMHO
going right
JMHO and JMHO
  found in 11
Let's Be Honest that's Too Tacky For Words Know What I'm Saying? Just My Humble Opinion
Let's Be Honest that's Too Tacky For Words Know What I'm Saying? Just My Humble Opinion
```

```
*****
```

```
Choose Option:
```

- a translate sentence
- b find acronym
- c add an acronym and definition
- d print tree
- q quit

```
a
```

```
Enter sentence to translate (you old person):
```

```
IMHO the PEBCAC LOL
```

```
start is 0
```

```
MBA and IMHO
```

```
going left
```

```
HAGN and IMHO
```

```
going right
```

```
ILYAAF and IMHO
```

```
going right
```

```
KIP and IMHO
```

```
going left
```

```
ITMA and IMHO
```

```
going left
```

```
IRL and IMHO
```

```
going left
```

```
IMS and IMHO
```

```
going left
```

```
IMCO and IMHO
```

```
going right
```

```
IMHO and IMHO
```

```
  found in 9
```

```
In My Humble Opinion
```

```
MBA and the
```

```
going right
```

```
PVC and the
```

```
going right
```

```
TIAD and the
```

```
going right
```

```
WC and the
```

```
going right
```

```
WTHRU and the
```

```
going right
```

```
XLNT and the
```

```
going right
```

```
YHGASP and the
```

```
going right
```

```
YOLO and the
```

```
going right
```

```
YTM and the
```

```
going right
```

```
YUM and the
```

```
going right
```

```
YWIMC and the
```

```
going right
```

```
bet and the
```

```
going right
```

```
dope and the
```

```
going right
```

```
fire and the
```

```

going right
No translation for the
In My Humble Opinion the
MBA and PEBCAC
going right
PVC and PEBCAC
going left
OA and PEBCAC
going right
PCM and PEBCAC
going right
POF and PEBCAC
going left
PK and PEBCAC
going left
PFA and PEBCAC
going left
PDEA and PEBCAC
going right
PEBCAC and PEBCAC
  found in 9
In My Humble Opinion the Problem Exists Between Chair And Computer
MBA and LOL
going left
HAGN and LOL
going right
ILYAAF and LOL
going right
KIP and LOL
going right
LOL and LOL
  found in 5
In My Humble Opinion the Problem Exists Between Chair And Computer Laughing Out Loud
In My Humble Opinion the Problem Exists Between Chair And Computer Laughing Out Loud

```

\*\*\*\*\*

```

Choose Option:
  a  translate sentence
  b  find acronym
  c  add an acronym and definition
  d  print tree
  q  quit

```

```

a
Enter sentence to translate (you old person):
AFAICT this program AGH but YMMV GLTY
start is 0
MBA and AFAICT
going left
HAGN and AFAICT
going left
CYBI and AFAICT
going left
BBC and AFAICT
going left
AGT and AFAICT
going left
ADAD and AFAICT
going right
AFAICS and AFAICT
going right
AFL and AFAICT
going left
AFFA and AFAICT
going left
AFAIR and AFAICT
going left
AFAIK and AFAICT
going left
AFAICT and AFAICT

```

found in 12  
As Far As I Can Tell  
MBA and this  
going right  
PVC and this  
going right  
TIAD and this  
going right  
WC and this  
going right  
WTHRU and this  
going right  
XLNT and this  
going right  
YHGASP and this  
going right  
YOLO and this  
going right  
YTM and this  
going right  
YUM and this  
going right  
YWIMC and this  
going right  
bet and this  
going right  
dope and this  
going right  
fire and this  
going right  
No translation for this  
As Far As I Can Tell this  
MBA and program  
going right  
PVC and program  
going right  
TIAD and program  
going right  
WC and program  
going right  
WTHRU and program  
going right  
XLNT and program  
going right  
YHGASP and program  
going right  
YOLO and program  
going right  
YTM and program  
going right  
YUM and program  
going right  
YWIMC and program  
going right  
bet and program  
going right  
dope and program  
going right  
fire and program  
going right  
No translation for program  
As Far As I Can Tell this program  
MBA and AGH  
going left  
HAGN and AGH  
going left  
CYBI and AGH  
going left  
BBC and AGH

going left  
AGT and AGH  
going left  
ADAD and AGH  
going right  
AFAICS and AGH  
going right  
AFL and AGH  
going right  
AGH and AGH  
    found in 9  
As Far As I Can Tell this program Ain't Gonna Happen  
MBA and but  
going right  
PVC and but  
going right  
TIAD and but  
going right  
WC and but  
going right  
WTHRU and but  
going right  
XLNT and but  
going right  
YHGASP and but  
going right  
YOLO and but  
going right  
YTM and but  
going right  
YUM and but  
going right  
YWIMC and but  
going right  
bet and but  
going right  
dope and but  
going left  
No translation for but  
As Far As I Can Tell this program Ain't Gonna Happen but  
MBA and YMMV  
going right  
PVC and YMMV  
going right  
TIAD and YMMV  
going right  
WC and YMMV  
going right  
WTHRU and YMMV  
going right  
XLNT and YMMV  
going right  
YHGASP and YMMV  
going right  
YOLO and YMMV  
going left  
YMBJ and YMMV  
going right  
YMMV and YMMV  
    found in 10  
As Far As I Can Tell this program Ain't Gonna Happen but Your Mileage May Vary  
MBA and GLTY  
going left  
HAGN and GLTY  
going left  
CYBI and GLTY  
going right  
GBML and GLTY  
going right

```
GOAT and GLTY
going left
GGNORE and GLTY
going right
GLWS and GLTY
going left
GKY and GLTY
going right
GLTA and GLTY
going right
GLU and GLTY
going left
GLTY and GLTY
found in 11
```

```
As Far As I Can Tell this program Ain't Gonna Happen but Your Mileage May Vary Good Luck To You
As Far As I Can Tell this program Ain't Gonna Happen but Your Mileage May Vary Good Luck To You
```

```
*****
```

```
Choose Option:
```

- a translate sentence
- b find acronym
- c add an acronym and definition
- d print tree
- q quit

```
a
```

```
Enter sentence to translate (you old person):
```

```
WEG I'll TCB and TBL with POIDH
```

```
start is 0
MBA and WEG
going right
PVC and WEG
going right
TIAD and WEG
going right
WC and WEG
going right
WTHRU and WEG
going left
WLM and WEG
going left
WDYM and WEG
going right
WITP and WEG
going left
WEG and WEG
found in 9
Wicked Evil Grin
MBA and I'll
going left
HAGN and I'll
going right
ILYAAF and I'll
going left
IDEK and I'll
going left
HW and I'll
going right
IAY and I'll
going left
IABW and I'll
going left
HYIP and I'll
going right
IA and I'll
going left
HYS and I'll
going right
HYU and I'll
going right
```

No translation for I'll  
Wicked Evil Grin I'll  
MBA and TCB  
going right  
PVC and TCB  
going right  
TIAD and TCB  
going left  
SMOP and TCB  
going right  
TAFN and TCB  
going right  
TCK and TCB  
going left  
TBTP and TCB  
going right  
TCFN and TCB  
going left  
TCB and TCB  
found in 9  
Wicked Evil Grin I'll Take care of business  
MBA and and  
going right  
PVC and and  
going right  
TIAD and and  
going right  
WC and and  
going right  
WTHRU and and  
going right  
XLNT and and  
going right  
YHGASP and and  
going right  
YOLO and and  
going right  
YTM and and  
going right  
YUM and and  
going right  
YWIMC and and  
going right  
bet and and  
going left  
YWU? and and  
going right  
Yeet and and  
going right  
No translation for and  
Wicked Evil Grin I'll Take care of business and  
MBA and TBL  
going right  
PVC and TBL  
going right  
TIAD and TBL  
going left  
SMOP and TBL  
going right  
TAFN and TBL  
going right  
TCK and TBL  
going left  
TBTP and TBL  
going left  
TBL and TBL  
found in 8  
Wicked Evil Grin I'll Take care of business and Text back later  
MBA and with

```

going right
PVC and with
going right
TIAD and with
going right
WC and with
going right
WTHRU and with
going right
XLNT and with
going right
YHGASP and with
going right
YOLO and with
going right
YTM and with
going right
YUM and with
going right
YWIMC and with
going right
bet and with
going right
dope and with
going right
fire and with
going right
No translation for with
Wicked Evil Grin I'll Take care of business and Text back later with
MBA and POIDH
going right
PVC and POIDH
going left
OA and POIDH
going right
PCM and POIDH
going right
POF and POIDH
going right
PPL and POIDH
going left
POV and POIDH
going left
POTD and POIDH
going left
PONR and POIDH
going left
POIDH and POIDH
    found in 10
Wicked Evil Grin I'll Take care of business and Text back later with Pics Or It Didn't Happen
Wicked Evil Grin I'll Take care of business and Text back later with Pics Or It Didn't Happen
*****
```

```

/*****************************************/
/* My (Partial) Output For an InOrder Traversal(4 pts) */
/*****************************************/
TPTB: The Powers That Be (1)
TR: Triple Rainbow (3)
TRDMC: Tears Running Down My Cheeks (1)
TRDMF: Tears Running Down My Face (2)
TRG: Tiny Rascal Gang (1)
TTFW: Too Tacky For Words (5)
TTG: Time To Go (1)
TTGG: Time To Go Girl (3)
TTH: Trying Too Hard (1)
TTIUWP: This Thread Is Useless Without Pictures (2)
```

TTIWWP: This Thread Is Worthless Without Pictures (1)  
TTJASI: Take This Job And Shove It (4)  
TTM: Talk To Me (1)  
TTMAB: TO THE MOON AND BACK (2)  
TTML: Talk To Me Later (1)  
TTO: Time To Own (10)  
TTOTM: That Time Of The Month (1)  
TTP: To The Point (2)  
TTR: Time To Relax (1)  
TTT: Third Tier Toilet (bad school) (3)  
TTTE: Thomas The Tank Engine (1)  
TTTH: Talk To The Hand (4)  
TTTT: These Things Take Time (1)  
TTTY: Time To Talk To You (2)  
TTUL: Talk To You Later (1)  
TTUS: Talk To You Soon. (3)  
TTUT: Talk To You Tomorrow (1)  
TTUTT: To Tell You the Truth (5)  
TTY: Talk To You (1)  
TTYF: Talk To You Forever (2)  
TTYIAB: Talk To You In A Bit (1)  
TTYITM: Talk To You In The Morning (3)  
TTYL: Talk To You Later (1)  
TTYM: Talk to You Ma (7)  
TTYN: Talk To You Never (2)  
TTYRS: Talk To You Real Soon (1)  
TTYS: Talk To You Soon (3)  
TTYT: Talk To You Tomorrow (1)  
TTYTT: To Tell You The Truth (4)  
TTYVS: Talk To You Very Soon (1)  
TUL: Tell You Later Text You Later (2)  
TVM: Thanks Very Much (1)  
TW: Trigger Warning (3)  
TWAIN: Technology Without An Interesting Name (1)  
TWLOHA: To Write Love On Her Arms (2)  
TWOOC: Taken Without Owner's Consent (1)  
TWTMC: To Whom This May Concern (5)  
TWU: That's What's Up (1)  
TWYL: Talk With You Later (2)  
TWYMS: That's What Your Mom Said (1)  
TY: Thank You (4)  
TYB: Try Your Best (1)  
TYBG: Thank You Based God (3)  
TYFAYS: Thank You For All Your Support (2)  
TYFE: Thank You For Everything (1)  
TYFYC: Thank You For Your Comment (6)  
TYFYT: Thank You For Your Time (1)  
TYG: There You Go (2)  
TYJ: Thank You Jesus (4)  
TYL: Text You Later (2)  
TYLJ: Thank You Lord Jesus (1)  
TYM: Thank You Much (3)  
TYMBI: Thought You Might Be Interested (1)  
TYS: Thank You Sir (5)  
TYSM: Thank You So Much (1)  
TYSVM: Thank You So Very Much (3)  
TYT: Take Your Time (1)  
TVVM: Thank You Very Much (2)  
U4E: You Forever (8)  
UE: User Experience (1)  
UR: Your (2)  
URI: Uniform Resource Indicator, URL (1)  
URL: Uniform Resource Locator, internet address (3)  
US: United States (1)  
USA: United States of America (2)  
USAF: United States Air Force (1)  
USB: Universal Serial Bus (4)  
USBM: United States Black Metal (1)  
USC: University of Southern California (2)

USCG: United States Coast Guard (1)  
USD: United States Dollar (6)  
USMC: United States Marine Corps (1)  
USP: Unique Selling Point (2)  
USPS: United States Postal Service (1)  
USS: United States Ship (3)  
USSR: Union of Soviet Socialist Republics (1)  
USW: Und So Weiter (German for etc) (2)  
UT: Unreal Tournament (1)  
UTC: Coordinated Universal Time Under The Counter (4)  
UTD: Up To Date (1)  
UTE: Utility vehicle, pickup truck (2)  
UTF: Unicode Transformation Format (1)  
UTFL: Use The Force, Luke (5)  
UTH: Up The Hoods (1)  
UTI: Urinary Tract Infection (2)  
UTO: Unable To Obtain (1)  
UTP: Up-Town Projects (3)  
UTR: Under The Radar (1)  
UTS: Under The Skin (2)  
UTT: Under The Table (1)  
UV: Unpleasant Visual (4)  
UW: You're Welcome (1)  
UWS: Upper West Side (of Manhattan) (3)  
UY: Up Yours (2)  
VA: Various Artists (1)  
VAT: Value Added Tax (9)  
VBD: Very Big Deal (1)  
VBG: Very Big Grin (2)  
VBL: Visible Bra Line (3)  
VBR: Variable Bit Rate (1)  
VBS: Very Big Smile (2)  
VC: Voice Chat (1)  
VCARD: Virtual (online) business card (4)  
VCD: Video Compact Disc (1)  
VCR: Video Cassette Recorder (2)  
VDU: Visual Display Unit (1)  
VFM: Value For Money (3)  
VG: Video Game Very Good (1)  
VGA: Video Graphics Array/Adaptor (2)  
VGC: Very Good Condition (1)  
VGG: Very Good Game (5)  
VGL: Very Good Looking (1)  
VGM: Video Game Music (2)  
VH1: Video Hits One (TV channel) (1)  
VHF: Very High Frequency (3)  
VHS: Video Home System (1)  
VIBE: Atmosphere, ambience (2)  
VID: Video (1)  
VIG: Interest paid on a loan (6)  
VIN: Vehicle Identification Number (1)  
VIP: Very Important Person (2)  
VIZ: Adult comic Namely (videlicet in Latin) (1)  
VJ: Video Jockey (like with lights and video) (3)  
VLAN: Virtual Local Area Network (1)  
VLSI: Very Large-Scale Integration (2)  
VM: Voice Mail (1)  
VMA: Video Music Awards (5)  
VMI: Virginia Military Institute (1)  
VN: Very Nice (2)  
VNC: Virtual Network Computing (1)  
VNDS: Very Near Dead Stock (3)  
VNH: Very Nice Hand (in online card games, especially poker) (1)  
VNS: Very Nice Shot (2)  
VOA: Voice Of America (1)  
VOD: Video-On-Demand (4)  
VOIP: Voice Over â€“ internet telephony (1)  
VP: Vice President (2)  
VPL: Visible Panty Line (1)

VPN: Virtual Private Network (3)  
VR: Virtual Reality (2)  
VS: Versus, against (1)  
VSF: Very Sad Face (7)  
VT: Video Tape (1)  
VTL: Visible Thong Line (2)  
VTPR: View To Permanent Relationship (1)  
VTR: Video Tape Recorder (3)  
VV: Very Very (1)  
VVN: Very Very Nice (4)  
VWP: Very Well Played Very Well Put (1)  
WAFWOT: What A F\*\*\*ing Waste Of Time (2)  
WAJ: What A Joke (1)  
WAK: Weird, awful (3)  
WAL: What A Loser (1)  
WAM: Wait A Minute (2)  
WAMH: With All My Heart (1)  
WAMHAS: With All My Heart And Soul (5)  
WAML: With All My Love (1)  
WAP: Wireless Access Point (2)  
WAPCE: Women Are Pure Concentrated Evil (1)  
WAREZ: Cracked/pirate software (3)  
WAS: Wait And See (1)  
WAY: Where Are You? (2)  
WAYD: What Are You Doing (1)  
WAYDRN: What Are You Doing Right Now? (4)  
WAYLT: What Are You Listening To? (1)  
WAYOA: What Are You On About? (3)  
WAYTA: What Are You Talking About (2)  
WAYWO: What Are You Working On? (1)  
WB: Welcome Back (6)  
WBB: Will Be Back (1)  
WBM: Wanna-Be Moderator (2)  
WBN: Would Be Nice (1)  
WBR: With Best Regards (3)  
WBS: Write Back Soon (1)  
WBT: Will Be There (4)  
WBU: What About You? (2)  
WBY: What (A)bout You? (1)  
WC: Who Cares (11)  
WCB: Will Call Back (1)  
WCG: World Cyber Games (2)  
WCIS: What Can I Say (3)  
WCS: Worst Case Scenario (1)  
WCW: World Championship Wrestling (2)  
WCYD: What Can You Do? (4)  
WD: Well Done (1)  
WDE: Worst Day Ever (2)  
WDFD: Whoop Dee F\*\*\*ing Doo (5)  
WDH: What Da Hell (1)  
WDIB: Why Do I Bother? (2)  
WDIC: What Do I Care? (3)  
WDIM: What Does It Mean? (1)  
WDITOT: Why Didn't I Think Of That (2)  
WDMB: Will Do My Best (4)  
WDOML: Worst Day Of My Life (1)  
WDTM: What Does That Mean? (2)  
WDUD: What Do You Do? (6)  
WDUM: What Do You Mean? (1)  
WDUT: What Do You Think? (2)  
WDW: Who Dares Wins (3)  
WDY: Why Don't You? (1)  
WDYD: What Did You Do? (2)  
WDYDT: Why Did You Do That? What Did You Do Today? (4)  
WDYE: What Did You Expect? (1)  
WDYG: Where Did You Go? (2)  
WDYM: What Do You Mean? (7)  
WDYMBT: What Do You Mean By That? (1)  
WDYS: What Did You Say? (2)

WDYT: What Do You Think? (3)  
WDYW: What Do You Want? (1)  
WDYWFM: What Do You Want From Me? (2)  
WDYWT: What Did You Wear Today? (4)  
WDYWTAA: What Do You Want To Talk About? (1)  
WE: Whatever (2)  
WEF: With Effect From (1)  
WEG: Wicked Evil Grin (5)  
WEP: Wireless Encryption Protocol (1)  
WFYB: Whatever Floats Your Boat (2)  
WHYB: Where Have You Been? (1)  
WHYD: What Have You Done? (4)  
WIA: Wounded In Action (1)  
WIP: Work In Progress (3)  
WIR: When It's Ready (2)  
WITH: Where In The Hell (1)  
WITP: What Is The Point? (6)  
WITW: What In The World (1)  
WIUWY: What Is Up With You? (2)  
WIWT: What I Wore Today Wish I Was There (1)  
WIWWU: Wish I Was With You (3)  
WIWWY: What Is Wrong With You? (1)  
WIYP: What Is Your Problem? (2)  
WJD: What Jesus Did (1)  
WKND: Weekend (4)  
WKS: Well Kept Secret (1)  
WKYP: Will Keep You Posted (2)  
WLM: Windows Live Messenger (8)  
WLTM: Would Like To Meet (1)  
WLYB: Who Loves You Baby (2)  
WLYK: Will Let You Know (1)  
WM: Woman Marine (3)  
WMA: Windows Media Audio (1)  
WMD: Weapons of Mass Destruction (2)  
WMF: Wagging My Finger (1)  
WMG: Warner Music Group (4)  
WML: Wish Me Luck (1)  
WMMOWS: Wash My Mouth Out With Soap! (2)  
WMP: Windows Media Player With Much Pleasure (1)  
WMV: Windows Media Video (5)  
WMYB: What Makes You Beautiful (1)  
WN: Why Not? What's New? (2)  
WNDITWB: We Never Did It This Way Before (1)  
WNL: Within Normal Limits (3)  
WNOHGB: Where No One Has Gone Before (1)  
WNTT: We Need To Talk (2)  
WNWY: What's New With You? (1)  
WOAT: Worst Of All Time (4)  
WOB: Waste Of Bandwidth (1)  
WOC: Women of Color (2)  
WOE: What On Earth (1)  
WOF: While On Fire (6)  
WOM: Women Over Mates (1)  
WOMBAT: Waste Of Money, Brains, And Time (2)  
WOS: Waste Of Space Wife Over Shoulder (1)  
WOTAM: Waste of Time and Money (3)  
WOTCHER: What are you up to?? (1)  
WOTD: Word Of The Day (2)  
WOTLK: Wrath Of The Lich King (1)  
WOTS: Word On The Street (4)  
WP: Wrong Person Well Played (1)  
WPA: Wi-Fi Protected Access (2)  
WPM: Words Per Minute (1)  
WR: Warm Regards (7)  
WRT: With Regard To (1)  
WRU: Where Are You? (2)  
WRUD: What Are You Doing? (1)  
WRUTA: What Are You Talking About? (3)  
WRYD: What Are You Doing? (1)

WRYTA: What Are You Talking About? (2)  
WSIC: Why Should I Care? (1)  
WSM: Woman Seeking Man (4)  
WSP: What's up? (1)  
WSS: Why So Serious? (2)  
WST: We're Still Friends (1)  
WSUL: Will See You Later (5)  
WSWTA: What Shall We Talk About? (1)  
WT?: What The â€¢? or Who the â€¢? (2)  
WTA: Winner Takes All (1)  
WTB: Want To Buy (4)  
WTBS: With That Being Said (1)  
WTC: World Trade Center What The Crap (3)  
WTD: What The Deuce? (1)  
WTDT: What To Do Today (2)  
WTDTA: Where They Do That At? (1)  
WTF: What The F\*\*\* (6)  
WTFT: What The French Toast (polite ) (1)  
WTG: Way To Go (2)  
WTGP: Way To Go, Partner (1)  
WTGP?: Want To Go Private? (3)  
WTH: What The Heck? (1)  
WTHAY: Who The Hell Are You? (4)  
WTHC: Who The Hell Cares? (1)  
WTHIGO: What The Hell Is Going On? (2)  
WTHIT: What The Hell Is That? (1)  
WTHIWWY: What The Hell Is Wrong With You? (3)  
WTHN: Why The Heck Not? (1)  
WTHRU: Who The Hell Are You? (10)  
WTII: What time Is It? (1)  
WTK: Want To Know (2)  
WTL: Will Talk Later (1)  
WTLW: Welcome To Last Week (3)  
WTM: What's The Matter? (1)  
WTMI: Way Too Much Information (4)  
WTML: Welcome To My Life (1)  
WTMW: Welcome To My World (3)  
WTO: World Trade Organization (2)  
WTP: What's The Point? (1)  
WTPA: Where The Party At? (5)  
WTT: Want To Trade (1)  
WTTC: Welcome To The club (2)  
WTTIR: When The Time Is Right (1)  
WTTJ: Welcome To The Jungle (3)  
WTTM: Without Thinking Too Much (1)  
WTW: Walk Through Walls (gaming) Walk this Way (4)  
WTY: Why, Thank You (1)  
WTYO: Whatever Turns You On (3)  
WUCIWUG: What You See Is What You Get (2)  
WUD: What You Doing? (1)  
WUF: Where Are You From? (6)  
WUG: What You Got? Where You Going? (1)  
WUGOWM: Will You Go Out With Me? (2)  
WUL: Watched User List (3)  
WULA: What're you Looking At? (1)  
WULLNP: Wishing You Long Life And Prosperity (2)  
WUM: Woman Wind-Up Merchant (4)  
WUW: What You Want? (1)  
WUWCB: What do You Want to Chat about? (2)  
WUWH: Wish You Were Here (3)  
WUWT: What's Up With That (1)  
WUWTA: What You Wanna Talk About? (2)  
WUWTB: What You Wanna Talk â€˜Bout? (7)  
WUWU: What's Up With You? (1)  
WWA: Wiggers with attitude (2)  
WWBD: What Would Batman Do? (3)  
WCND: What Would Chuck Norris Do? (1)  
WWE: World Wrestling Entertainment (2)  
WWF: World Wildlife Fund (4)

WWIC: Why Would I Care? (1)  
WWIT: What Was I Thinking? (2)  
WWJBD: What Would Jason Bourne Do? (3)  
WWJD: What Would Jesus Do? (1)  
WWJP: What Would Jesus Post? (2)  
WWOTW: Wicked Witch Of The West (5)  
WNTBAM: Who Wants To Be A Millionaire? (1)  
WWU: Where Were You? (2)  
WWW: World Wide Web (3)  
WWY: What's Wrong With You? (1)  
WWY: Where Were You? (2)  
WWYD: What Would You Do? (4)  
WWYDT: Why Would You Do That? (1)  
WYA: Where You At? (2)  
WYATB: Wish You All The Best (3)  
WYB: Watch Your Back (1)  
WYBD: What've You Been Doing? (2)  
WYBMV: Will You Be My Valentine? (1)  
WYCM: Will You Call Me? (6)  
WYD: What You Doing? (1)  
WYDN: What You Doing Now? (2)  
WYF: What's Your Favorite ª? (1)  
WYG: What You Get (3)  
WYGOWM: Will You Go Out With Me? (1)  
WYK: Would You Kindly (2)  
WYL: Whatever You Like (1)  
WYLABOCTGWTR: Would You Like A Bowl Of Cream To Go With That Remark? (4)  
WYLASOMWTC: Would You Like A Saucer Of Milk With That Comment? (1)  
WYLIION: Whether You Like It Or Not (2)  
WYLSCTWTW: Would You Like Some Cheese With That Whine? (1)  
WYLT: What You Listening To? (3)  
WYM: Watch Your Mouth What You Mean? (1)  
WYMM: Will You Marry Me? (2)  
WYN: What's Your Name? (1)  
WYP: What's Your Problem? (5)  
WYR: Would You Rather (1)  
WYS: What You Said (2)  
WYSIWYG: What You See Is What You Get (1)  
WYTA: What You Talking About? (4)  
WYUT: What You Up To (1)  
WYW: Whatever You Want (3)  
WYWH: Wish You Were Here (2)  
WYWTA: What You Wanna Talk About (1)  
XLNT: Excellent (9)  
XOXO: Hugs and Kisses (1)  
YAGB: You Ain't Grizz Baby ( ) (2)  
YALA: You Always Live Again (3)  
YANA: You Are Not Alone (1)  
YATB: You Are The Best (2)  
YATK: You Are Too Kind (1)  
YATLOML: You Are The Love Of My Life (4)  
YAVW: You Are Very Welcome (1)  
YAW: You Are Welcome (2)  
YBS: You'll Be Sorry (1)  
YBTJ: You Be The Judge (3)  
YBW: You've Been Warned (1)  
YBWM: You Belong With Me (2)  
YCMIU: You Couldn't Make It Up (1)  
YCMU: You Crack Me Up (5)  
YDEK: You Don't Even Know (1)  
YDI: You Deserve It (2)  
YDK: You Don't Know (1)  
YDL: Yellow Dog Linux (3)  
YDMS: You Don't Make Sense (1)  
YDMT: You Don't Mean That (4)  
YDS: You Don't Say (1)  
YDU: You Don't Understand (2)  
YF: Your Friend (1)  
YFW: Your Face When (3)

YG: Young Gangster (1)  
YGG: You Go Girl (6)  
YGI: You Got It (1)  
YGLT: You're Gonna Love This (2)  
YGM: You've Got Mail (1)  
YGPM: You've Got Private Message (3)  
YGTBK: You've Got To Be Kidding (1)  
YGTBKM: You've Got To Be Kidding Me (4)  
YGTI: You Get The Idea (1)  
YGTR: You Got That Right (2)  
YHA: Youth Hostel Association (1)  
YHBT: You Have Been Trolled (3)  
YHBW: You Have Been Warned (1)  
YHGASP: You Have Got A Serious Problem (8)  
YHL: You Have Lost (1)  
YHM: You Have Mail (2)  
YHNI: You Have No Idea (1)  
YHTBT: You Had To Be There (3)  
YID: Yes I Do (1)  
YIK: Yes, I Know (4)  
YITB: Yours In The Bond (1)  
YITE: Are You All Right? (2)  
YJLTG: You Just Lost The Game (1)  
YK: You're Kidding (3)  
YKHII: You Know How It Is (1)  
YKIMS: You Know It Makes Sense (5)  
YKTR: You Know the Rest (1)  
YKW: You Know Who (2)  
YKWM: You Know What I Mean (1)  
YKWIS: You Know What I'm Saying? (3)  
YKYLM: You Know You Love Me (1)  
YL: Young Lady (4)  
YLI: You Love It (1)  
YLM: You Love Me? (2)  
YLOD: Yellow Light Of Death (1)  
YLYL: You Laugh You Lose (3)  
YM: Yahoo Messenger Your Mom (1)  
YMBJ: You Must Be Joking (6)  
YMCA: Young Mens Christian Association (1)  
YMCMB: Young Money Cash Money Billionaires (3)  
YMD: You Made My Day (1)  
YMM: You Make Me Laugh (2)  
YMMs: You Make Me Smile (1)  
YMMV: Your Mileage May Vary (4)  
YMW: You're Most Welcome (1)  
YNK: You Never Know (3)  
YNW: You're Not Welcome (1)  
YNWA: You'll Never Walk Alone (2)  
YOLF: You Only Live Forever (1)  
YOLO: You Only Live Once (7)  
YOMB: You Owe Me Big (1)  
YOYO: You're On Your Own (2)  
YP: Your Problem (3)  
YQW: You're Quite Welcome (1)  
YR: Yea, Right. (2)  
YRG: You Are Good! (4)  
YRMV: Your Results May Vary (1)  
YRO: Your Rights Online (2)  
YRU: Why Are You? (3)  
YSC: Your So Cute (1)  
YSI: You Stupid Idiot (2)  
YSK: You Should Know (5)  
YSMTU: You So Made That Up (1)  
YSS: You Suck Severely (2)  
YSW: You're So Very Welcome (4)  
YSYL: You Snooze, You Loose (2)  
YT?: You Think ? (1)  
YTB: You're The Best (3)  
YTD: Year To Date (1)

YTM: You're The Man (6)  
YML: You'll Thank Me Later (1)  
YTMD: You're The Man Now, Dog (3)  
YTO: You're The One (1)  
YTP: YouTube Poop (2)  
YTTM: You Talk Too Much You Talking To Me? (1)  
YUM: Said when something tastes good or is attractive (5)  
YVW: You're Very Welcome (1)  
YW: You're Welcome (2)  
YWCA: Young Women's Christian Association (1)  
YWIMC: Your Wish Is My Command (4)  
YWSYLS: You Win Some, You Lose Some (1)  
YWU?: Yo Waz Up? (2)  
Yeet: exclamation (1)  
bet: no (3)  
dope: high quality, mind blowing (2)  
fire: awesome (1)

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