Quiz3

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Question 1 The American Community Survey distributes downloadable data about United States communities. Download the 2006 microdata survey about housing for the state of Idaho using download.file() from here:

data.csv

and load the data into R. The code book, describing the variable names is here:

codebook.pdf

Create a logical vector that identifies the households on greater than 10 acres who sold more than \$10,000 worth of agriculture products. Assign that logical vector to the variable agricultureLogical. Apply the which() function like this to identify the rows of the data frame where the logical vector is TRUE.

which(agricultureLogical)

What are the first 3 values that result?

```
Q1url <- "https://d396qusza40orc.cloudfront.net/getdata%2Fdata%2Fss06hid.csv"
Q1 <- read.csv(Q1url)
head(Q1)
```

```
##
      RT
         SERIALNO DIVISION PUMA REGION ST
                                                  ADJUST WGTP NP
                                                                    TYPE ACR AGS
                                                                                    BDS BLD
                                                                                             BUS
## 1
      Η
               186
                            8
                                700
                                           4
                                             16
                                                1015675
                                                             89
                                                                  4
                                                                             1
                                                                                NA
                                                                                      4
                                                                                           2
                                                                                                2
                                                                        1
## 2
      Η
               306
                                700
                                           4 16 1015675
                                                            310
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                                                                           NA
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                                                                                           7
                                                                                               NA
## 3
       Η
                                100
                                                                                      3
                                                                                           2
                                                                                                2
               395
                            8
                                             16 1015675
                                                            106
                                                                  2
                                                                            1
                                                                                NA
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##
   4
       Η
               506
                            8
                                700
                                           4
                                             16
                                                 1015675
                                                            240
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                                                                        1
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                                                                                                2
       Η
                                800
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##
   5
               835
                            8
                                           4 16 1015675
                                                            118
                                                                        1
                                                                                 1
##
   6
       Η
               989
                            8
                                700
                                           4 16
                                                            115
                                                                             1
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                                                                                           2
                                                                                                2
                                                 1015675
           ELEP FS
##
                           GASP
                                 HFL
                                                            MRGP
                                                                       MRGX PLM RMS RNTM
                                                                                             RNTP
      CONP
                     FULP
                                      INSP KIT MHP
                                                      MRGI
                                                                 MRGT
                               3
                                                            1300
## 1
        NA
             180
                   0
                         2
                                    3
                                       600
                                              1
                                                  NA
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                                                                     1
                                                                           1
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                                                                                     9
                                                                                          NA
                                                                                                NA
                               3
                                    3
                                                                                     2
## 2
        NA
                   0
                         2
                                                                                           2
                                                                                               600
              60
                                        NA
                                              1
                                                  NA
                                                        NA
                                                              NA
                                                                    NA
                                                                          NA
                                                                                1
## 3
              70
                         2
                              30
                                    1
                                       200
                                              1
                                                        NA
                                                                           3
                                                                                1
                                                                                     7
        NA
                   0
                                                  NA
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                                                                    NA
                                                                                          NA
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## 4
        NA
              40
                   0
                         2
                              80
                                    1
                                       200
                                              1
                                                  NA
                                                         1
                                                             860
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                                                                                1
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                                                                                          NA
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                                                                                                ΝA
                         2
                               3
                                    3
                                       700
                                                            1900
                                                                                     7
## 5
        NA
             250
                   0
                                              1
                                                  NA
                                                         1
                                                                     1
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                                                                                          NA
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                         2
                                    3
                                       250
##
   6
        NA
             130
                   0
                               3
                                              1
                                                  NA
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                                                             700
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                                                                                          NA
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##
      SMP
          TEL TEN VACS
                          VAL
                              VEH WATP
                                         YBL FES
                                                    FINCP
                                                            FPARC
                                                                   GRNTP
                                                                          GRPIP
                                                                                 HHL HHT
                                                                                            HINCP
                                                   105600
                                                                 2
##
   1
       NA
             1
                  1
                      NA
                           17
                                 3
                                     840
                                            5
                                                 2
                                                                      NA
                                                                              NA
                                                                                    1
                                                                                         1
                                                                                           105600
##
   2
       NA
             1
                  3
                      NA
                           NA
                                 1
                                       1
                                            3
                                               NA
                                                        NA
                                                               NA
                                                                     660
                                                                              23
                                                                                    1
                                                                                         4
                                                                                            34000
   3
                  2
                                 2
                                            5
                                                 7
                                                                 2
                                                                                         3
##
       NA
             1
                      NA
                           18
                                      50
                                                      9400
                                                                      NA
                                                                              NA
                                                                                    1
                                                                                             9400
## 4 400
             1
                      NA
                           19
                                 3
                                     500
                                            2
                                                 1
                                                    66000
                                                                 1
                                                                      NA
                                                                              NA
                                                                                            66000
                  1
                                                                                    1
                                                                                         1
## 5
     650
             1
                  1
                      NA
                           20
                                 5
                                       2
                                            3
                                                 1
                                                    93000
                                                                 2
                                                                      NA
                                                                              NA
                                                                                    1
                                                                                         1
                                                                                            93000
##
             1
                                 2 1200
                                            5
                                                 2
                                                    61000
                                                                              NA
                                                                                            61000
   6 400
                  1
                      NA
                           15
                                                                 1
                                                                      NA
                                                                                    1
                                                                                         1
      HUGCL HUPAC HUPAOC HUPARC LNGI MV NOC NPF NPP NR NRC OCPIP PARTNER PSF R18
```

##	1	0	2	2	2	1	4 2	2 4	0	0	2	18		0	0	1
##	2	0	4	4	4	1	3 0	NA	0	0	0	NA		0	0	0
##	3	0	2	2	2	1	2 1	. 2	0	0	1	23		0	0	1
##	4	0	1	1	1	1	3 2	_	-	0	2	26		0	0	_
##	5	0	2	2	2	1	1 1	_	-	-	1	36		0	0	_
##	6	0	1	1	1	1	4 2	_	-	-	2	26		0	0	_
##	4	R60 R6		ODE SMOO						WKEX		VORKS7		FACRP	ŀΆ	GSP
## ##	2	0	0	1 155 2 N	SO 3 IA NA	0 1	1 0	24 NA	3 NA		2 NA		3 NA	0		0
##	3	0	0	1 17		0	1	16	NA 1		13		13	0		0
##	4	0	0	2 142		0	1	31	2		2		1	0		0
##	5	0	0	1 280		0	1	25	3		1		1	0		0
##	6	0	0	2 133		0	1	7	1		7		3	0		0
##		FBDSP	FBLDP I	FBUSP FO	CONP FE	LEP F	FSP FF	ULP	FGAS	P FF	IFLP I	FINSP	FKIT	rp FM	ΗP	FMRGIP
##	1	0	0	0	0	0	0	0		0	0	0		0	0	0
##	2	0	0	0	0	0	0	0		0	0	0		0	0	0
##	3	0	0	0	0	0	0	0		0	0	0		0	0	0
##	4	0	0	0	0	0	0	0		0	0	0		0	0	0
##	5	0	0	0	0	0	0	0		0	0	0		0	0	0
##	6	0	0	0	0	0	0	0		0	0	1		0	0	0
##	4	FMRGP	FMRGTP	FMRGXP		FPLMP				FRNT			1XHP	FSMX		FTAXP
##	2	0	0	0	0	0			0		0	0	0		0	0 0
##	3	0	0	0	0	0			0		0	0	0		0	0
##	4	0	0	0	0	0			0		0	0	0		0	0
##	5	0	0	0	0	0	_		0		0	0	0		0	0
##		0	0	0	0	0)	0		0	0	0		0	1
									•		0					
##		FTELP	FTENP I	FVACSP F	VALP F	'VEHP	FWATP		-	tp1	-	-	-	gtp4	wgt	_
## ##	1	FTELP 0	FTENP I	FVACSP F	FVALP F	VEHP 0	FWATP O	FYBL	-	tp1 87	-	2 wgtp	-	gtp4 95		p5 26
	2							FYBL	P wg O 1	87 539	wgtp2 28 363	2 wgtp 3 19 3 29	o3 wg 56 93	95 422	5	p5 26 66
## ## ##	2	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	FYBL	P wg 0 1	87 539 187	wgtp2 28 363 38	2 wgtr 3 19 3 29 5 18	o3 wg 56 93 34	95 422 178	5	p5 26 66 83
## ## ## ##	2 3 4	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	FYBL	P wg 0 1 0	87 539 187 232	wgtp2 28 363 38 406	2 wgtr 3 19 3 29 5 18 6 23	o3 wg 56 93 34	95 422 178 270	5	p5 26 66 83 49
## ## ## ##	2 3 4 5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	FYBL	P wg 0 1 0 0	87 539 187 232 107	wgtp2 28 363 39 406 194	2 wgtp 3 15 3 29 5 18 6 23 1 12	o3 wg 56 93 34 34 29	95 422 178 270 41	5 2 1	p5 26 66 83 49
## ## ## ## ##	2 3 4	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	FYBL	P wg 0 1 0 0 0	87 539 187 232 107 191	wgtp2 28 363 38 406 194	2 wgt _I 3 19 3 29 5 18 6 23 1 12	53 wg 56 93 34 34 29	95 422 178 270 41 115	5 2 1	p5 26 66 83 49 56
## ## ## ## ## ##	2 3 4 5 6	0 0 0 0 0 0 wgtp6	0 0 0 0 0 0 wgtp7	0 0 0 0 0 0 wgtp8 wg	0 0 0 0 0 0 stp9 wg	0 0 0 0 0 0 tp10	0 0 0 0 0 1 wgtp11	FYBL	P wg 0 1 0 0 0 0 0 p12	87 539 187 232 107 191	wgtp2 28 363 39 406 194 197	2 wgt ₁ 3 15 3 25 5 18 6 23 4 12 7 12 gtp14	53 wg 56 93 34 34 29 27 wgtr	95 422 178 270 41 115	5 2 1 1 gtp	p5 26 66 83 49 56 15
## ## ## ## ## ##	2 3 4 5 6	0 0 0 0 0 0 wgtp6 25	0 0 0 0 0 0 wgtp7 v	0 0 0 0 0 0 wgtp8 wg	0 0 0 0 0 0 gtp9 wg	0 0 0 0 0 0 0 stp10	0 0 0 0 0 1 wgtp11	FYBL wgt	P wg 0 1 0 0 0 0 0 p12 166	87 539 187 232 107 191 wgtp	wgtp2 28 363 39 406 194 197 513 wg	2 wgtp 3 15 3 29 5 18 6 23 4 12 7 12 gtp14 25	03 wg 56 93 34 34 29 27 wgtr	95 422 178 270 41 115 515 w	5 2 1 1 gtp	p5 26 66 83 49 56 15 16
## ## ## ## ## ##	2 3 4 5 6 1 2	0 0 0 0 0 0 wgtp6 25 289	0 0 0 0 0 0 wgtp7 v 95 87	0 0 0 0 0 0 wgtp8 wg 93 242	0 0 0 0 0 0 stp9 wg 93 453	0 0 0 0 0 0 tp10 91 453	0 0 0 0 0 1 wgtp11 87 334	FYBL wgt	P wg 0 1 0 0 0 p12 166 358	87 539 187 232 107 191 wgtp	wgtp2 28 363 39 406 194 197	2 wgtp 3 15 3 29 5 18 6 23 6 23 7 12 7 12 25 102	03 wg 56 93 34 34 29 27 wgtr	95 422 178 270 41 115 515 w 153 281	5 2 1 1 gtp	p5 26 66 83 49 56 15 16 89
## ## ## ## ## ##	2 3 4 5 6 1 2 3	0 0 0 0 0 0 wgtp6 25	0 0 0 0 0 0 wgtp7 v	0 0 0 0 0 0 wgtp8 wg	0 0 0 0 0 0 gtp9 wg	0 0 0 0 0 0 0 stp10	0 0 0 0 0 1 wgtp11	FYBL wgt	P wg 0 1 0 0 0 0 0 p12 166	87 539 187 232 107 191 wgtr	wgtp2 28 363 38 406 194 197 13 wg 90	2 wgtp 3 15 3 29 5 18 6 23 4 12 7 12 gtp14 25	93 wg 56 93 34 34 29 27 wgtr	95 422 178 270 41 115 515 w	5 2 1 1 gtp	p5 26 66 83 49 56 15 16
## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4	0 0 0 0 0 wgtp6 25 289 95	0 0 0 0 0 0 wgtp7 95 87 31	0 0 0 0 0 0 wgtp8 wg 93 242 32	0 0 0 0 0 0 stp9 wg 93 453 177	0 0 0 0 0 0 0 ttp10 91 453 118	0 0 0 0 0 1 wgtp11 87 334	FYBL wgt	P wg 0 1 0 0 0 p12 166 358	87 539 187 232 107 191 wgtr	wgtp2 28 363 38 406 194 197 513 wg 90 114	2 wgtp 3 18 3 29 5 18 6 23 7 12 gtp14 25 102 107	22 2 2 3 3 3 3 3 4 2 2 3 4 2 2 7 8 8 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	95 422 178 270 41 115 015 w 153 281 95	5 2 1 1 gtp 1 4	p5 26 66 83 49 56 15 16 89 99
## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4 5	0 0 0 0 0 wgtp6 25 289 95 242	0 0 0 0 0 0 wgtp7 95 87 31 406	0 0 0 0 0 0 wgtp8 wg 93 242 32 249	0 0 0 0 0 0 stp9 wg 93 453 177 287	0 0 0 0 0 0 0 ttp10 91 453 118 67	0 0 0 0 0 1 wgtp11 87 334 110	FYBL wgt	P wg 0 1 0 0 0 0 p12 166 358 114 413	87 539 187 232 107 191 wgtr	wgtp2 28 363 38 406 194 197 13 wg 90 114 84	2 wgtp 3 18 3 29 5 18 6 23 7 12 7 12 gtp14 25 102 107 77	22 2 2 3 3 3 3 4 2 2 3 4 2 2 7 8 8 1 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2	95 422 178 270 41 115 515 w 153 281 95 245	5 2 1 1 2 gtp 1 4 2	p5 26 66 83 49 56 15 16 89 99 15
## ## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4 5 6	0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17	0 0 0 0 0 0 wgtp7 95 87 31 406 47 119 wgtp18	0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 8 wgtp19	0 0 0 0 0 0 5tp9 wg 93 453 177 287 101 32	0 0 0 0 0 0 tp10 91 453 118 67 33 30	0 0 0 0 1 wgtp11 87 334 110 72 115 123	FYBL wgt	P wg 0 1 0 0 0 0 0 p12 166 358 114 413 52 199 wgt	87 539 187 232 107 191 wgtr 4 1 3	wgtp2 28 363 406 194 197 513 wg 90 114 84 899 113 117 wgtp2	2 wgtp 3 15 3 29 5 18 6 23 1 12 7 12 gtp14 25 102 107 77 95 33 24 wgt	25 p25	95 422 178 270 41 115 515 w 153 281 95 245 135 109 wgtp	5 2 1 1 gtp 1 4 2 1	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27
## ## ## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4 5 6 1	0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17	0 0 0 0 0 0 wgtp7 v 95 87 31 406 47 119 wgtp18	0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 3 wgtp19	0 0 0 0 0 0 0 5tp9 wg 93 453 177 287 101 32 9 wgtp2	0 0 0 0 0 0 0 tp10 91 453 118 67 33 30 0 wgt	0 0 0 0 1 wgtp11 87 334 110 72 115 123 p21 wg	FYBL wgt	P wg 0 1 0 0 0 0 p12 166 358 114 413 52 199 wgt	87 539 187 232 107 191 wgtp 4 1 1 2 1 1 1 1 23 1 140	wgtp2 28 363 38 406 194 197 13 wg 90 114 844 899 113 117 wgtp2	2 wgtp 3 18 3 29 5 18 6 23 1 12 7 12 gtp14 25 102 107 77 95 33 24 wgt	25 25 25 27 27 27 27 26 27 27 27 27 27 27 27 27 27 27 27 27 27	95 422 178 270 41 115 515 w 153 281 95 245 135 109 wgtp	5 2 1 1 gtp 1 4 2 1 26 27	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86
## ## ## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4 5 6 1 2	0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17 148	0 0 0 0 0 0 wgtp7 v 95 87 31 406 47 119 vgtp18 8 82 8 278	0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 8 wgtp19 2 25 3 131	0 0 0 0 0 0 0 93 453 177 287 101 32 9 wgtp2 5 18	0 0 0 0 0 0 ttp10 91 453 118 67 33 30 0 wgt	0 0 0 0 0 1 wgtp11 87 334 110 72 115 123 p21 wg 90 447	wgt	P wg 0 1 0 0 0 0 p12 166 358 114 413 52 199 wgt	87 539 187 232 107 191 wgtp 4 1 3 1 123 140 352	wgtp2 28 363 38 406 194 197 213 484 399 113 117 wgtp2 23	2 wgtp 3 15 3 29 5 18 6 23 1 12 7 12 gtp14 25 102 107 77 95 33 24 wgt 92 38	25 25 390	95 422 178 270 41 115 015 w 153 281 95 245 135 109 wgtp	5 2 1 1 gtp 1 4 2 1 26 27 36	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86 122
## ## ## ## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4 5 6 1 2 3	0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17 148 108	0 0 0 0 0 0 wgtp7 95 87 31 406 47 119 wgtp18 8 8 27 8 118	0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 8 wgtp19 2 25 3 131 3 120	0 0 0 0 0 0 0 stp9 wg 93 453 177 287 101 32 9 wgtp2 5 18	0 0 0 0 0 0 tp10 91 453 118 67 33 30 90 wgt	0 0 0 0 0 1 wgtp11 87 334 110 72 115 123 P21 wg 90 447 184	wgt wgt 264 264 35	P wg 0 1 0 0 0 0 p12 166 358 114 413 52 199 wgt	87 539 187 232 107 191 wgtp 4 1 3 1 11 p23 140 352 176	wgtp2 28 363 38 406 194 197 913 wg 90 114 844 399 113 117 wgtp2 23	2 wgtp 3 15 3 29 5 18 6 23 1 12 7 12 3tp14 25 102 107 77 95 33 24 wgt 92 38 76	25 25 390 110	95 422 178 270 41 115 515 w 153 281 95 245 135 109 wgtp	5 2 1 1 2 1 4 2 2 1 226 27 36 03	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86 122 29
## ## ## ## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4 5 6 1 2 3 4	0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17 148 108	0 0 0 0 0 0 wgtp7 v 95 87 31 406 47 119 vgtp18 3 278 3 118 7 63	0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 3 wgtp19 2 2 3 3 131 3 3 233 233	0 0 0 0 0 0 0 stp9 wg 93 453 177 287 101 32 9 wgtp2 5 18 40 0 3	0 0 0 0 0 0 0 0 1453 118 67 33 30 0 wgt 60 7	0 0 0 0 0 1 wgtp11 87 334 110 72 115 123 P21 wg 90 447 184 238	wgt wgt 24 264 35 69	P wg 0 0 1 0 0 0 0 0 0 1144 134 52 199 wgt	87 539 187 232 107 191 wgtp 1 3 140 352 176 238	wgtp2 28 363 38 406 194 197 013 wg 90 114 884 899 113 117 wgtp2 23 17 25	2 wgtp 3 18 3 29 5 18 6 12 7 12 gtp14 25 107 77 95 33 24 wgt 92 38 76	29 27 wgtr 1 2 2 2 5 2 3 9 0 1 1 0 2 3 9	95 422 178 270 41 115 515 w 153 281 95 245 135 109 wgtp	5 2 1 1 gtp 1 4 2 1 26 27 36 03 48	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86 122 29 69
## ## ## ## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4 5 6 1 2 3 4 5	0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17 148 108	0 0 0 0 0 0 wgtp7 v 95 87 31 406 47 119 wgtp18 3 82 3 278 3 118	0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 3 wgtp19 2 25 3 131 3 120 3 226 5 135	0 0 0 0 0 0 0 stp9 wg 93 453 177 287 101 32 9 wgtp2 5 18 40 0 3 5 25	0 0 0 0 0 0 tp10 91 453 118 67 33 30 0 wgt	0 0 0 0 0 1 wgtp11 87 334 110 72 115 123 p21 wg 90 447 184 238 116	wgt wgt 24 264 35 69 33	P wg 0 1 0 0 0 0 1 1 6 358 114 413 52 199 wgt	87 539 187 232 107 191 wgtp 24 13 140 352 176 238 105	wgtp2 28 363 38 406 194 197 013 wg 90 114 184 1899 113 117 wgtp2 23 17 28	2 wgtp 3 18 3 29 5 18 6 23 4 12 7 12 gtp14 25 102 107 77 95 33 24 wgt 92 38 76	29 27 wgtr 2 2 1 2 2 5 2 5 3 9 0 1 1 0 2 3 9 3 8	95 422 178 270 41 115 515 w 153 281 95 245 135 109 wgtp 3 1	5 2 1 1 gtp 1 4 2 1 26 27 36 03 48 30	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86 122 29 69 230
## ## ## ## ## ## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4 5 6 1 2 3 4 5	0 0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17 48 108 33 67	0 0 0 0 0 0 0 wgtp7 v 95 87 31 406 47 119 wgtp18 3 82 3 118 7 63 0 18	0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 3 wgtp19 2 25 3 131 3 120 3 226 5 135	0 0 0 0 0 0 0 0 0 2tp9 wg 93 453 177 287 101 32 9 wgtp2 5 18 40 0 3 5 25 5 27	0 0 0 0 0 0 1tp10 91 453 118 67 33 30 0 wgt	0 0 0 0 0 1 wgtp11 87 334 116 123 123 121 wg 90 447 184 238 116 184	wgt wgt 24 264 35 69 33 198	P wg 0 1 0 0 0 0 1 1 6 358 114 413 52 199 wgt	87 539 187 232 107 191 wgtp 23 140 352 176 238 105 113	wgtp2 28 363 38 406 194 197 513 wg 90 114 884 899 113 117 wgtp2 23 10	2 wgtp 3 18 3 29 5 18 6 23 1 12 7 12 gtp14 25 107 77 95 33 324 wgt 92 38 76 55 14	200 239 38 117	95 422 178 270 41 115 515 w 153 281 95 245 135 109 wgtp 3 1 2	5 2 1 1 gtp 1 4 2 1 26 27 36 03 48 30 11	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86 122 29 69 230 110
## ## ## ## ## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4 5 6 1 2 3 4 5 6	0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17 148 108 33 67 100 31 wgtp28	0 0 0 0 0 0 wgtp7 95 87 31 406 47 119 wgtp18 3 278 3 118 7 63 1 18 1 118 3 wgtp28	0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 3 wgtp19 2 25 3 131 3 120 3 226 5 135 5 201 9 wgtp30	0 0 0 0 0 0 0 0 93 453 177 287 101 32 9 wgtp2 5 18 40 0 3 5 25 5 27 1 19 0 wgtp3	0 0 0 0 0 0 1tp10 91 453 118 67 33 30 0 wgt	0 0 0 0 1 wgtp11 87 334 110 72 115 123 p21 wg 90 447 184 238 116 184 p32 wg	wgt wgt 24 264 35 69 33 198 gtp33	P wg 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	87 539 187 232 107 191 wgtp 23 140 352 176 238 105 113 p34	wgtp2 28 363 38 406 194 197 13 wg 90 114 184 399 113 117 wgtp2 23 17 25 24 wgtp3	2 wgtp 3 18 3 29 5 18 6 23 1 12 7 12 gtp14 25 102 107 77 95 33 24 wgt 92 38 76 55 14 99 38 76 55 56 57 77 98 98 98 98 98 98 98 98 98 98	200 239 38 117 2536	95 422 178 270 41 115 515 w 153 281 95 245 135 109 wgtp 3 1 2 1	5 2 1 1 1 4 2 1 26 27 36 03 48 30 11 37	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86 122 29 69 230 110 wgtp38
### ### ### ### ### ### ### ### ### ##	2 3 4 5 6 1 2 3 4 5 6 1 2 3 4 5 6 1	0 0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17 148 108 33 67 100 31 wgtp28	0 0 0 0 0 0 0 wgtp7 v 95 87 31 406 47 119 vwgtp18 8 82 8 118 7 63 9 188 1 118 1 118 8 wgtp28	0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 8 wgtp19 2 25 3 131 8 120 3 226 5 135 5 201 9 wgtp30 7 93	0 0 0 0 0 0 0 0 93 453 177 287 101 32 9 wgtp2 5 18 40 0 3 5 25 5 27 1 19 0 wgtp3 8 9	0 0 0 0 0 0 1tp10 91 453 118 67 33 30 0 wgt	0 0 0 0 0 1 wgtp11 87 334 110 72 115 123 90 447 184 238 116 184 p32 wg	wgt wgt 24 264 35 69 33 198 5tp33 91	P wg 0 1 0 0 0 0 1 1 0 0 0 1 1 6 358 114 413 52 199 wgt wgt	87 539 187 232 107 191 wgtp 23 140 352 176 238 105 113 p34 28	wgtp2 28 363 38 406 194 197 213 23 17 wgtp2 24 10 wgtp3	2 wgtp 3 18 3 29 5 18 6 23 1 12 7 12 gtp14 25 102 107 77 95 33 24 wgt 92 38 76 55 14 19 99 38 99 99 99 99 99 99 99 99 99 9	200 200 200 200 200 200 200 200 200 200	95 422 178 270 41 115 015 w 153 281 95 245 135 109 wgtp 3 1 2 1 wgtp	5 2 1 1 2 1 26 27 36 03 48 30 11 37 44	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86 122 29 69 230 110 wgtp38 95
## ## ## ## ## ## ## ## ## ## ##	2 3 4 5 6 1 2 3 4 5 6 1 2 3 4 5 6 1 2	0 0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17 148 108 33 67 100 31 wgtp28	0 0 0 0 0 0 wgtp7 95 87 31 406 47 119 wgtp18 8 8 27 8 8 118 7 6 6 119 119 119 119 119 119 119 119 119	0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 3 wgtp19 2 25 3 131 3 120 3 226 5 135 5 201 9 wgtp30 7 93 2 468	0 0 0 0 0 0 0 0 1453 177 287 101 32 9 wgtp2 5 18 40 0 3 5 25 5 27 1 19 0 wgtp3 8 9	0 0 0 0 0 0 1tp10 91 453 118 67 33 30 wgt 60 77 64 99 10 11 wgt	0 0 0 0 0 1 wgtp11 87 334 110 72 115 123 90 447 184 238 116 184 p32 wg 149 251	wgt wgt 264 264 35 69 33 198 (tp33 91 613	P wg 0 1 0 0 0 0 1 1 0 0 0 1 1 1 1 1 1 1 1	87 539 187 232 107 191 wgtp 11 35 140 352 176 238 105 113 p34 28 104	wgtp2 28 363 38 406 194 197 913 wg 90 114 844 899 113 117 wgtp2 23 17 28 24 10 wgtp3	2 wgtp 3 15 3 29 5 18 6 23 1 12 7 12 3 102 107 77 95 33 24 wgt 92 38 76 55 14 199 35 wgt 13 13 14 15 16 17 17 18 18 18 18 18 18 18 18 18 18	200 27 wgtr 200 27 wgtr 200 27 wgtr 200 200 200 200 200 200 200 200 200 200	95 422 178 270 41 115 515 w 153 281 95 245 135 109 wgtp 3 1 wgtp 1	5 2 1 1 2 1 26 27 36 03 48 30 11 37 44 91	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86 122 29 69 230 110 wgtp38 95 326
### ### ### ### ### ### ### ### ### ##	23456 123456 123456 123	0 0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17 148 108 33 67 100 31 wgtp28	0 0 0 0 0 0 0 wgtp7 95 87 31 406 47 119 wgtp18 8 3 278 8 118 7 6 6 118 118 118 118 118 118 118 118 118	0 0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 3 wgtp19 2 25 3 131 3 120 3 226 5 135 5 201 9 wgtp30 7 93 2 468 7 127	0 0 0 0 0 0 0 1 177 287 101 32 9 wgtp2 5 18 40 0 3 5 25 5 27 1 19 9 wgtp3 8 9	0 0 0 0 0 0 1tp10 91 453 118 67 33 30 0 wgt 60 7 7 67 64 9 9 10 67 67 67 67 67 67 67 67 67 67 67 67 67	0 0 0 0 0 1 wgtp11 87 334 110 72 115 123 90 447 184 238 116 184 p32 wg	wgt wgt 24 264 35 69 33 198 5tp33 91	P wg 0 1 0 0 0 0 1 1 6 358 114 413 52 199 wgt	87 539 187 232 107 191 wgtp 23 140 352 176 238 105 113 p34 28	wgtp2 28 363 38 406 194 197 90 114 844 899 113 117 wgtp2 23 17 28 24 10 wgtp3	2 wgtp 3 18 3 29 5 18 6 23 1 12 7 12 gtp14 25 102 107 77 95 33 24 wgt 92 38 76 55 14 19 99 38 99 99 99 99 99 99 99 99 99 9	200 200 200 200 200 200 200 200 200 200	95 422 178 270 41 115 515 w 153 281 95 245 135 109 wgtp 3 1 2 1 wgtp 1	5 2 1 1 2 1 26 27 36 03 48 30 11 37 44	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86 122 29 69 230 110 wgtp38 95
######################################	2 3 4 5 6 1 2 3 4 5 6 1 2 3 4	0 0 0 0 0 0 wgtp6 25 289 95 242 174 107 wgtp17 148 108 33 67 100 31 wgtp28	0 0 0 0 0 0 0 wgtp7 v 95 87 31 406 47 119 vgtp18 3 278 3 118 7 63 0 188 1 118 3 wgtp29 1 482 1 197 2 47	0 0 0 0 0 0 0 wgtp8 wg 93 242 32 249 113 34 3 wgtp19 2 25 3 131 3 120 3 226 5 201 9 wgtp30 7 93 2 468 7 127 7 437	0 0 0 0 0 0 0 5tp9 wg 93 453 177 287 101 32 9 wgtp2 5 18 40 0 3 5 25 5 27 1 19 0 wgtp3 8 93	0 0 0 0 0 0 0 1453 118 67 33 30 0 wgt 60 17 7 7 14 19 10 10 10 10 10 10 10 10 10 10 10 10 10	0 0 0 0 0 1 wgtp11 87 334 110 72 115 123 P21 wg 90 447 184 238 116 184 p32 wg 149 251 118	wgt wgt 264 35 69 33 198 5173 613 177	P wg 0 0 1 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0	87 539 187 232 107 191 wgtp 13 140 352 176 238 105 113 p34 28 104 99	wgtp2 28 363 38 406 194 197 013 wg 90 114 884 899 113 117 wgtp2 28 10 wgtp3 128 28 28	2 wgtp 3 15 3 29 5 18 6 23 1 12 7 12 3 102 107 77 95 33 24 wgt 92 38 76 55 14 199 35 44 99 36 37 38 49 49 49 49 49 49 49 49 49 49	203 Wg 566 2334 34 29 27 27 27 27 27 27 27 27 27 27 27 27 27	95 422 178 270 41 115 515 w 153 281 95 245 135 109 wgtp 3 1 2 1 wgtp 1	5 2 1 1 gtp 1 4 2 1 26 27 36 33 48 30 11 37 44 91 34	p5 26 66 83 49 56 15 16 89 99 15 24 06 17 wgtp27 86 122 29 69 230 110 wgtp38 95 326 100

```
## 6
         33
                 37
                         36
                               110
                                       183
                                               114
                                                        35
                                                              134
                                                                      119
##
     wgtp39 wgtp40 wgtp41 wgtp42 wgtp43 wgtp44 wgtp45 wgtp46 wgtp47 wgtp48 wgtp49
## 1
         27
                 22
                         90
                                171
                                        27
                                                83
                                                       153
                                                              148
                                                                       92
                                                                               91
                                                                                       91
## 2
        102
                361
                                253
                                       321
                                               289
                                                              343
                                                                      564
                                                                              274
                        107
                                                        96
                                                                                      118
## 3
        105
                 33
                        173
                                 36
                                       168
                                               175
                                                        99
                                                               103
                                                                       30
                                                                               35
                                                                                      155
## 4
        229
                236
                        239
                                 65
                                       259
                                               247
                                                       230
                                                              225
                                                                       82
                                                                              220
                                                                                      233
## 5
                195
                        116
                                 36
                                       135
                                               237
                                                        33
                                                                33
                                                                      249
                                                                              102
                                                                                       84
        127
## 6
                 33
                                 32
                                       109
                                               115
                                                               112
                                                                              192
        188
                         34
                                                       115
                                                                      119
                                                                                      186
##
     wgtp50 wgtp51 wgtp52 wgtp53 wgtp54 wgtp55 wgtp56 wgtp57 wgtp58 wgtp59 wgtp60
## 1
         93
                                       142
                                                24
                                                               29
                                                                       84
                                                                              148
                 90
                         26
                                 94
                                                        91
                                                                                       30
## 2
        118
                321
                        261
                                130
                                       463
                                               294
                                                       479
                                                              391
                                                                      307
                                                                              476
                                                                                      283
        102
                 95
                        107
                                185
                                       120
                                               114
                                                               36
                                                                              103
                                                                                       29
## 3
                                                       113
                                                                      115
                390
                                74
                                       391
                                               276
                                                              422
                                                                      409
                                                                              223
                                                                                      245
## 4
        419
                         69
                                                        70
## 5
        224
                119
                        250
                                119
                                       125
                                               126
                                                        32
                                                               112
                                                                       33
                                                                              131
                                                                                       45
## 6
        213
                106
                         34
                                124
                                       179
                                               106
                                                       107
                                                               190
                                                                      112
                                                                               34
                                                                                       35
##
     wgtp61 wgtp62 wgtp63 wgtp64 wgtp65 wgtp66 wgtp67 wgtp68 wgtp69 wgtp70 wgtp71
## 1
         93
                143
                         24
                                88
                                       147
                                               145
                                                        91
                                                               83
                                                                       83
                                                                               86
                                                                                       81
## 2
                353
                                374
                                       106
                                               236
                                                              313
                                                                       90
                                                                               94
                                                                                      292
        116
                        323
                                                       380
## 3
        183
                 35
                        179
                                169
                                        95
                                               110
                                                        28
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                                                                               97
                                                                                      123
                                250
                                                              234
## 4
        269
                488
                        221
                                       247
                                               240
                                                       415
                                                                      219
                                                                               66
                                                                                       68
## 5
        101
                165
                        125
                                 41
                                       191
                                               195
                                                        49
                                                               119
                                                                       92
                                                                               44
                                                                                      127
## 6
         32
                 34
                        119
                                123
                                       122
                                               121
                                                       123
                                                               196
                                                                      196
                                                                              207
                                                                                      120
     wgtp72 wgtp73 wgtp74 wgtp75 wgtp76 wgtp77 wgtp78 wgtp79 wgtp80
##
## 1
         27
                 93
                        151
                                 28
                                        79
                                                25
                                                       101
                                                              157
                                                                      129
                                346
                                                              454
                                                                      260
## 2
        401
                 81
                        494
                                       496
                                               615
                                                       286
## 3
        119
                168
                        107
                                95
                                       101
                                                30
                                                       124
                                                              106
                                                                       31
## 4
        359
                385
                         71
                                234
                                       421
                                                76
                                                        77
                                                              242
                                                                      231
## 5
         36
                119
                                116
                                       209
                                                97
                                                       176
                                                               144
                                                                       38
                        121
## 6
                109
                        199
                                116
                                               211
                                                       120
                                                               31
                                                                      189
         34
                                       110
```

```
#Computing solution...

agricultureLogical <- Q1$ACR == 3 & Q1$AGS == 6
which(agricultureLogical)
```

```
## [1] 125 238 262 470 555 568 608 643 787 808 824 849 952 955 1033 ## [16] 1265 1275 1315 1388 1607 1629 1651 1856 1919 2101 2194 2403 2443 2539 2580 ## [31] 2655 2680 2740 2838 2965 3131 3133 3163 3291 3370 3402 3585 3652 3852 3862 ## [46] 3912 4023 4045 4107 4113 4117 4185 4198 4310 4343 4354 4448 4453 4461 4718 ## [61] 4817 4835 4910 5140 5199 5236 5326 5417 5531 5574 5894 6033 6044 6089 6275 ## [76] 6376 6420
```