

Computer Networks 2021 Exercises - Unit 5

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NOTE: Each student's work unit is unique. You must use the work that has been generated for your FAN. If you do not, then you will fail this work unit.

NOTE: You must record your answers in the answer file EXACTLY as required, and commit and make sure your changes have been pushed to the github server, as they will otherwise not be counted.

NOTE: The topic coordinator will periodically run the automatic marking script, which will cause a file called unit5-results.pdf to be updated in your repository. You should check this file to make sure that your answers have been correctly counted. That file will contain the time and date that the marking script was last run, so that you can work out if it has been run since you last changed your answers. You are free to update your answers as often as you wish, until the deadline for the particular work unit.

1 TCP/IP And Related Protocol Packet Formats and Header Fields

For each question, you must record your answer in the unit5-answers.txt file in your git repository. Templates for each answer are provided in unit5-answers.txt for your convenience.

You will find information on the packet header formats in many places, including:

- *https://en.wikipedia.org/wiki/Ethernet_frame#Header*
- *<https://en.wikipedia.org/wiki/IPv4#Header>*
- *https://en.wikipedia.org/wiki/Address_Resolution_Protocol*
- *https://en.wikipedia.org/wiki/Transmission_Control_Protocol#TCP_segment_structure*
- *https://en.wikipedia.org/wiki/User_Datagram_Protocol#UDP_datagram_structure*

Considering the following packet:

```
# 0x0000: 42b5 4d1c 9f96 214f e0a5 b3f2 8848 0001  B.M...!0....H..
# 0x0010: 2912 4500 0052 0000 4000 1206 0000 030c  ).E..R..@.....
# 0x0020: 0211 9653 78b5 5857 5582 67c2 a16c 2532  ...Sx.XWU.g..1%2
# 0x0030: c7f2 5085 c6ad 0000 0007 c814 49ee 82f5  ..P.....I...
# 0x0040: e922 6d12 af90 11fd 64d6 fb00 ff16 43da  ."m.....d.....C.
# 0x0050: 3b15 7735 63b0 89ea 3fd9 9254 0560 88d7  ;.w5c...?...T.`..
# 0x0060: 73dd 00b2                                     s...
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|-------------------------|--|
| ab | ETH frame type | Four-digit Hex: Answer with the four digit hexadecimal value of the field, e.g., 02AF. Do not put a leading 0x or \$ on the front of the hexadecimal number. |
| ac | IP destination address | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |
| ad | ETH destination address | Ethernet MAC Address. Answer in the customary format, retaining leading zeroes, e.g., 02:ca:fe:f0:0d:00 |
| ae | Frame is 802.1q | Boolean: Answer Y or N |
| af | MPLS label | Integer: Answer with the decimal value of the field. |
| ag | MPLS last label? | Boolean: Answer Y or N |

Considering the following packet:

```
# 0x0000: 8b8d cc8a 08fe c0aa 508a 7f2c 8848 0000 .....P...H..
# 0x0010: c53f 4500 007f 0000 4000 2006 0000 b046 .?E.....@.....F
# 0x0020: d1ad f524 62b2 be3d c2e1 5aba 090e 05fc ...$b..=..Z.....
# 0x0030: 4431 508f 426a 0000 000b 0d2e 85ff 5fab D1P.Bj....._.
# 0x0040: 0078 af9a 8301 abd7 b844 07ed ae42 49e4 .x.....D...BI.
# 0x0050: c753 0f7c 54b4 4bdf be0e cfda ffe7 fc65 .S.|T.K.....e
# 0x0060: f5ae efac 4867 cfc b 96c5 a3ca 7bf6 d54b ....Hg.....{..K
# 0x0070: ff5a 3074 f63d 10e4 0fe8 de99 f24e 7649 .Z0t.=.....NvI
# 0x0080: 6588 dc7d d00a 28cc 4aad f530 f67a 1a8b e..}..(J..0.z..
# 0x0090: 64                                     d
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|------------------------|---|
| ah | IP Don't Frag | Boolean: Answer Y or N |
| ai | TCP URG | Boolean: Answer Y or N |
| aj | TCP source port | Integer: Answer with the decimal value of the field. |
| ak | IP TTL | Integer: Answer with the decimal value of the field. |
| al | IP destination address | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |
| am | IP Protocol of payload | Integer: Answer with the decimal value of the field. |

Considering the following packet:

```
# 0x0000:  b2b6 3c11 bdd5 1a89 5598 b3d7 8100 77a9  ..<.....U.....w.
# 0x0010:  0800 4500 0055 0000 4000 1911 0000 3b32  ..E..U..@.....;2
# 0x0020:  a424 a21a 8b43 deb7 8e5c 0103 335d 47d6  .$....C...\..3]G.
# 0x0030:  6084 8328 4b8b a776 08ba a686 e1eb 05e6  `..(K..v.....
# 0x0040:  74f2 46d1 f493 1af6 ae44 23a9 84c3 5338  t.F.....D#...S8
# 0x0050:  39f8 80d4 83ed d082 d9bb 80fb 7713 a0a3  9.....w...
# 0x0060:  feb2 b7fe e5d6 d2                ....
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|------------------------|--|
| an | IP Don't Frag | Boolean: Answer Y or N |
| ao | UDP source port | Integer: Answer with the decimal value of the field. |
| ap | IP Protocol of payload | Integer: Answer with the decimal value of the field. |
| aq | IP FLAGS | Integer: Answer with the decimal value of the field. |
| ar | IP destination address | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |
| as | ETH frame type | Four-digit Hex: Answer with the four digit hexadecimal value of the field, e.g., 02AF. Do not put a leading 0x or \$ on the front of the hexadecimal number. |

Considering the following packet:

```
# 0x0000:  c778 3ea3 6eed ab4d a0cf c374 88a8 765b  .x>.n..M...t..v[
# 0x0010:  0800 4500 0052 0000 4000 2606 0000 3fd7  ..E..R..@.&...?.
# 0x0020:  1326 2006 732c 4233 ae6c 35ee c87f 33b6  .&..s,B3.15...3.
# 0x0030:  870a 500c 3c1e 0000 0001 28a9 50da 610f  ..P.<.....(.P.a.
# 0x0040:  0b12 80fa f321 add4 ae49 20ee c369 59be  ....!...I...iY.
# 0x0050:  7307 095f 385a 5751 384e 4741 ce4f 8e11  s.._8ZWQ8NGA.0..
# 0x0060:  1f5f 4d1f                                     ._M.
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|------------------------|--|
| at | IP TTL | Integer: Answer with the decimal value of the field. |
| au | IP ToS | Integer: Answer with the decimal value of the field. |
| av | IP Protocol of payload | Integer: Answer with the decimal value of the field. |
| aw | IP FLAGS | Integer: Answer with the decimal value of the field. |
| ax | TCP URG | Boolean: Answer Y or N |
| ay | IP length | Integer: Answer with the decimal value of the field. |

Considering the following packet:

```
# 0x0000:  fcf5 5879 2401 bfec ecaf 626d 8847 0000  ..Xy$.....bm.G..
# 0x0010:  f969 4500 0095 0000 0000 3911 0000 3af1  .iE.....9....
# 0x0020:  821c e949 e663 76a7 1057 0092 dfb2 1631  ...I.cv..W.....1
# 0x0030:  2ec1 73f9 dcb2 2169 2486 2e87 ac6e def9  ..s...!i$....n..
# 0x0040:  d989 3092 f6d7 e96d 261f 339e 8955 be35  ..0....m&.3..U.5
# 0x0050:  e4c1 d873 8e9b 3b9c dac0 a9b3 9555 c847  ...s...;.....U.G
# 0x0060:  9259 a889 b1ca 3a88 95dd e054 71fc 5d71  .Y.....Tq.]q
# 0x0070:  333d 38f1 c17b f326 2a54 eb4e c26f 9e09  3=8...{.&*T.N.o..
# 0x0080:  a7de 4e29 355d a841 6ce3 f7ff c920 3942  ..N)5].A1.....9B
# 0x0090:  7cbd fe9a 509e 3bdc 927b b0b9 c8c0 bb7e  |...P.;...{.....~
# 0x00a0:  a9f1 81f4 f0c4 49                                .....I
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|-------------------|---|
| az | IP source address | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |
| ba | Frame is MPLS | Boolean: Answer Y or N |
| bb | Frame is 802.1ad | Boolean: Answer Y or N |
| bc | IP Don't Frag | Boolean: Answer Y or N |
| bd | IP FLAGS | Integer: Answer with the decimal value of the field. |
| be | MPLS last label? | Boolean: Answer Y or N |

Considering the following packet:

```
# 0x0000: 7089 97cd 9a12 e3a0 238b 0fdc 8847 0000 p.....#....G..
# 0x0010: f72e 4500 003c 0000 4000 2311 0000 8cb5 ..E..<...@.#.....
# 0x0020: ac97 4242 7749 e08b 39f3 0043 8580 05af ..BBwI...9..C....
# 0x0030: 7287 f776 245c b423 b5a6 d35e eb6f b875 r..v$\.#...^..o.u
# 0x0040: f03d 6336 3fee 06e7 035e 4b0a 767d      .-c6?...^K.v}
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|-------------------|---|
| bf | IP ECN | Integer: Answer with the decimal value of the field. |
| bg | IP length | Integer: Answer with the decimal value of the field. |
| bh | IP source address | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |
| bi | UDP source port | Integer: Answer with the decimal value of the field. |
| bj | IP FLAGS | Integer: Answer with the decimal value of the field. |
| bk | IP More Fragments | Boolean: Answer Y or N |

Considering the following packet:

```
# 0x0000:  5250 142f 42fa a132 9d14 b131 0806 0001  RP./B..2...1...
# 0x0010:  0800 0604 0002 242a d158 6e5c ea8c 90fb  ....$*.Xn\....
# 0x0020:  71f7 4eff e2d1 6f7a 8182 bff6 0f3a e331  q.N...oz.....1
# 0x0030:  5093 7004 4bf0 c62f 33be 9c62 0b2e eb73  P.p.K../3..b...s
# 0x0040:  61f7 9d3f f097 2ed3 c485 13          a..?.....
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|------------------|---|
| b1 | ARP source IP | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |
| bm | ARP HTYPE | Integer: Answer with the decimal value of the field. |
| bn | Frame is MPLS | Boolean: Answer Y or N |
| bo | ARP request | Boolean: Answer Y or N |
| bp | Frame is 802.1ad | Boolean: Answer Y or N |
| bq | ARP target IP | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |

Considering the following packet:

```
# 0x0000:  bbb6 6d6d 3e88 be5a 76fd 2031 8100 47a0  ..mm>..Zv..1..G.
# 0x0010:  0806 0001 0800 0604 0002 1721 8cff 6cb8  ....!...l.
# 0x0020:  3f1c e4ed 794c d744 9e27 2719 50a5 c430  ?...yL.D.''.P..0
# 0x0030:  7867 bd60 b124 afb3 8a73 68b2 ffda ceae  xg.`.$...sh.....
# 0x0040:  47e9 272b ebf3 48d8 5f34 8818 7b5c 7217  G.'+..H._4..{\r.
# 0x0050:  b699 b1fe 993c 4bd8 748e e451 93e5 861c  .....<K.t..Q....
# 0x0060:  fd2c e313 9c13 5046 b92c a663 a6d9 66b8  .,....PF.,.c..f.
# 0x0070:  00                                     .
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|----------------|--|
| br | ETH frame type | Four-digit Hex: Answer with the four digit hexadecimal value of the field, e.g., 02AF. Do not put a leading 0x or \$ on the front of the hexadecimal number. |
| bs | Frame is MPLS | Boolean: Answer Y or N |
| bt | ARP target IP | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |
| bu | ARP request | Boolean: Answer Y or N |
| bv | ARP source MAC | Ethernet MAC Address. Answer in the customary format, retaining leading zeroes, e.g., 02:ca:fe:f0:0d:00 |
| bw | ARP HTYPE | Integer: Answer with the decimal value of the field. |

Considering the following packet:

```
# 0x0000: d9aa b5f5 c7e3 de0d 2f3e 9d7d 0800 4500 ...../>}.E.
# 0x0010: 007e 0000 4000 3f11 0000 bd6d 5499 a7b6 .~..@.?....mT...
# 0x0020: 955f 7807 bb89 003e efa0 57c0 d001 b0d9 ._x....>..W....
# 0x0030: f38e 5c9d ed6f 184b c6be 841a f581 be36 ..\...o.K.....6
# 0x0040: 104d 8d4b 1ff6 feeb dc56 10f7 0e21 7c55 .M.K....V...!|U
# 0x0050: a1ed 85a2 a95a c7ac c803 5bbf 7071 a9c5 .....Z....[.pq..
# 0x0060: 2e97 4d34 19a8 dbef 48ef 7bb8 808f d0ff ..M4....H.{.....
# 0x0070: 442b dbfc 91c3 5109 93ea 16ab 4311 78fa D+....Q.....C.x.
# 0x0080: 7ea5 5934 60ec 6a8f 6eeb e881          ~.Y4`.j.n...
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|------------------------|--|
| bx | IP More Fragments | Boolean: Answer Y or N |
| by | IP DSCP | Integer: Answer with the decimal value of the field. |
| bz | IP Protocol of payload | Integer: Answer with the decimal value of the field. |
| ca | Frame is 802.1q | Boolean: Answer Y or N |
| cb | UDP destination port | Integer: Answer with the decimal value of the field. |
| cc | IP FLAGS | Integer: Answer with the decimal value of the field. |

Considering the following packet:

```
# 0x0000: fd7b 92f5 1099 2fd9 cc67 e540 8100 421e  .{..../.g.@..B.
# 0x0010: 0806 0001 0800 0604 0001 d326 ce19 2ae3  ....&...*.
# 0x0020: f76f 1a9a 49c6 a4b1 cde7 7916 1976 e595  .o..I.....y..v..
# 0x0030: 78bc b2d5 bce3 ed28 80f3 f1aa befa 89a5  x.....(.....
# 0x0040: 62a0 a8c0 7171 09b6 ce63 c756 7529 e2    b...qq...c.Vu).
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|-------------------------|---|
| cd | ARP target MAC | Ethernet MAC Address. Answer in the customary format, retaining leading zeroes, e.g., 02:ca:fe:f0:0d:00 |
| ce | ARP PTYPE | Integer: Answer with the decimal value of the field. |
| cf | ARP source IP | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |
| cg | ETH source address | Ethernet MAC Address. Answer in the customary format, retaining leading zeroes, e.g., 02:ca:fe:f0:0d:00 |
| ch | ETH destination address | Ethernet MAC Address. Answer in the customary format, retaining leading zeroes, e.g., 02:ca:fe:f0:0d:00 |
| ci | ARP HTYPE | Integer: Answer with the decimal value of the field. |

Considering the following packet:

```
# 0x0000: 5ec6 1ecc 9075 71ee bf48 33d1 8847 0000 ^....uq..H3..G..
# 0x0010: 7f67 4500 005b 0000 4000 2e06 0000 c67c .gE...[.@.....|
# 0x0020: 3c94 6641 5e7f d9ae 6f76 0a16 a2f2 1028 <.fA^...ov.....(
# 0x0030: ea92 5085 b10a 0000 0007 8b4f f083 9485 ..P.....0....
# 0x0040: 867b aeb4 1d8d 3401 301a 85f7 0a66 09e6 .{....4.0....f..
# 0x0050: 8efe 3a2a 4a3e ef32 8f08 bb6a fc19 d7d2 ...*J>.2...j....
# 0x0060: 5d21 801c 5d19 7c39 101e ed24 d8          ]!...|.9...$.
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|-------------------------|---|
| cj | TCP window size | Integer: Answer with the decimal value of the field. |
| ck | Frame is 802.1ad | Boolean: Answer Y or N |
| cl | IP ToS | Integer: Answer with the decimal value of the field. |
| cm | TCP CWR | Boolean: Answer Y or N |
| cn | TCP ACK | Boolean: Answer Y or N |
| co | ETH destination address | Ethernet MAC Address. Answer in the customary format, retaining leading zeroes, e.g., 02:ca:fe:f0:0d:00 |

Considering the following packet:

```
# 0x0000: 85fb 48d7 4968 4969 9a45 a91c 8100 37be  ..H.IhIi.E....7.
# 0x0010: 0800 4500 0042 0000 4000 0f06 0000 d7fb  ..E..B..@.....
# 0x0020: 618b d2d3 866f dc8d 7695 4967 4dda 7e35  a....o...v.IgM.~5
# 0x0030: 123c 5025 9f8b 0000 000f 7293 3d77 d207  .<P%.....r.=w..
# 0x0040: e4f0 4f6f b6d8 d456 3f75 fd9b 190e e331  ..0o...V?u.....1
# 0x0050: 9eb0 b7f2                                     ....
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|------------------------|---|
| cp | TCP SYN | Boolean: Answer Y or N |
| cq | TCP RST | Boolean: Answer Y or N |
| cr | IP destination address | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |
| cs | IP Don't Frag | Boolean: Answer Y or N |
| ct | IP ToS | Integer: Answer with the decimal value of the field. |
| cu | TCP destination port | Integer: Answer with the decimal value of the field. |

Considering the following packet:

```
# 0x0000: 0e71 7265 f73a c2f6 4576 805f 0806 0001 .qre:...Ev._....
# 0x0010: 0800 0604 0002 16e0 ba47 5777 b0e2 cda4 .....GWw....
# 0x0020: 7517 b583 28b1 d44f 56aa 0131 76b6 6c40 u...(..OV..1v.l@
# 0x0030: 624f ff6e ea1a e443 2467 0733 bc79 aaf1 b0.n...C$g.3.y..
# 0x0040: 6b9b 0df1 89de 5bab 0f4b c536 541d 41f3 k.....[..K.6T.A.
# 0x0050: 65e5 8aa6 f57d 3cf1 ab8d 89cb 0e0f e479 e....}<.....y
# 0x0060: 122e 96de cf0f e6d9 .....

```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|-----------------|--|
| cv | ARP target IP | IPv4 address. Answer in dotted quad notation, e.g., 129.96.1.21 |
| cw | ARP reply | Boolean: Answer Y or N |
| cx | Frame is 802.1q | Boolean: Answer Y or N |
| cy | ETH frame type | Four-digit Hex: Answer with the four digit hexadecimal value of the field, e.g., 02AF. Do not put a leading 0x or \$ on the front of the hexadecimal number. |
| cz | ARP request | Boolean: Answer Y or N |
| da | ARP HTYPE | Integer: Answer with the decimal value of the field. |

Considering the following packet:

```
# 0x0000: 7c25 b1eb c27a d60f fc34 990c 0800 4500  |%...z...4....E.
# 0x0010: 0078 0000 4000 2706 0000 f575 8e02 ae4a  .x..@.'....u...J
# 0x0020: 4446 8a82 6015 629b e690 1d4d c4e1 50ab  DF..`.b....M..P.
# 0x0030: a987 0000 0004 21ca 5eb2 482d 4edc 9ead  ....!..^..H-N...
# 0x0040: f349 00d5 78e4 bdf5 6a32 c26d 560a 6287  .I..x...j2.mV.b.
# 0x0050: 8303 ee50 b16e 8231 646b 8fa1 e955 ad1e  ...P.n.1dk...U..
# 0x0060: d01c 1783 7a8b 33fc dcb7 0bce 875f 9932  ....z.3....._.2
# 0x0070: 5280 ce80 0a16 a2c3 823a f4cb 8491 064d  R.....:.....M
# 0x0080: a28c 4f7d af7c                               ..0}.|
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|-------------------------|--|
| db | TCP SYN | Boolean: Answer Y or N |
| dc | IP TTL | Integer: Answer with the decimal value of the field. |
| dd | ETH destination address | Ethernet MAC Address. Answer in the customary format, retaining leading zeroes, e.g., 02:ca:fe:f0:0d:00 |
| de | TCP source port | Integer: Answer with the decimal value of the field. |
| df | IP length | Integer: Answer with the decimal value of the field. |
| dg | ETH frame type | Four-digit Hex: Answer with the four digit hexadecimal value of the field, e.g., 02AF. Do not put a leading 0x or \$ on the front of the hexadecimal number. |

Considering the following packet:

```
# 0x0000: 493a 856a f1cc 4150 52de 5f7c 88a8 4000 I:.j..APR._|..@.
# 0x0010: 0800 4500 0093 0000 0000 2d06 0000 97fd ..E.....-.....
# 0x0020: fa4d f58b 50ba 66f3 a7be 7a25 a787 33f3 .M..P.f...z%..3.
# 0x0030: 5301 5031 5e81 0000 0006 33c1 5925 c906 S.P1^.....3.Y%..
# 0x0040: c2ba c880 1609 6556 40a9 aeac b588 dc55 .....eV@.....U
# 0x0050: d6d5 a25c 0520 0281 180d f853 630f 3e42 ...\......Sc.>B
# 0x0060: a3be 1ac0 c9bc a894 f426 d05f b106 b37a .....&._...z
# 0x0070: d082 5984 08f5 89c5 aae9 1521 6b7f 27e3 ..Y.....!k.'.
# 0x0080: f55e 1834 c881 c494 75c9 ac37 3630 214c .^.4....u..760!L
# 0x0090: 7a64 fb43 4ba0 b088 7d95 fa88 8ac9 cbc1 zd.CK...}.....
# 0x00a0: 9596 7034 0c ..p4.
```

Find the value of the following fields:

| Question ID | Field | Type |
|-------------|-------------------------|--|
| dh | TCP RST | Boolean: Answer Y or N |
| di | ETH destination address | Ethernet MAC Address. Answer in the customary format, retaining leading zeroes, e.g., 02:ca:fe:f0:0d:00 |
| dj | IP ToS | Integer: Answer with the decimal value of the field. |
| dk | ETH frame type | Four-digit Hex: Answer with the four digit hexadecimal value of the field, e.g., 02AF. Do not put a leading 0x or \$ on the front of the hexadecimal number. |
| dl | Frame is MPLS | Boolean: Answer Y or N |
| dm | IP FLAGS | Integer: Answer with the decimal value of the field. |

2 Lecture Material Comprehension

The following questions are designed with two purposes in mind:

1. To help you engage with the lecture materials; and
2. To help generate a wide range of questions for the quizzes in this topic.

The second goal is not mandatory for you. However, if you are willing for the answers you provide to the questions in this section to be used in future quizzes in this topic, you are requested to answer the following question as follows you will not be penalised if you do not give this permission

| Question# | Description |
|-----------|--|
| dn | Are you willing to release your following answers in this section from all copyrights, i.e., release them into the public domain, including so that they can be included in quizzes in this topic? you will not be penalised or treated any differently if you do not choose to give this permission |

It is important that you answer this question with 'y', if you do decide that you would like to do this (but again, you have no obligation to do so, and you will not be treated differently whether or not you give permission).

The entry in `unit5-answers.txt` would thus look like:

```
# Question 'dn': Do you commit the following answers to the public domain
# and disclaim all copyrights in them?
dn=y
```

For each question, you must record your answer in the `unit5-answers.txt` file in your git repository. For each question, you are required to write a statement that is either true or false about the material in the indicated lecture slide.

For example, if you were asked 'write a **true** statement about the content of Slide 2 of Chapter 1', you would put the statement at the end of the `rj=` line in the file `unit5-answers.txt`. For example, if your statement was 'One of the problems addressed in this chapter is how to build scalable networks', you would write:

| Question# | Description |
|-----------|---|
| pz | Write a true statement about the content of Slide 2 of Chapter 1 |

The entry in `unit5-answers.txt` would thus look like:

```
# Question 'pz': Write a true statement about the content of Slide 2 of Chapter 1
pz=One of the problems addressed in this chapter is how to build scalable networks
```

Templates for each answer are provided in `unit5-answers.txt` for your convenience.

If you are asked to write a statement that is false, i.e., untrue, think about statements that someone who has not worked through the material might think would be true. Be creative! Be devious!

| Question# | Description |
|-----------|--|
| do | Write a true statement about the content of Slide 8 of Chapter 3 |
| dp | Write a true statement about the content of Slide 56 of Chapter 7 |
| dq | Write a true statement about the content of Slide 43 of Chapter 4 |
| dr | Write a true statement about the content of Slide 14 of Chapter 9 |
| ds | Write a false statement about the content of Slide 29 of Chapter 3 |
| dt | Write a true statement about the content of Slide 43 of Chapter 9 |
| du | Write a false statement about the content of Slide 107 of Chapter 3 |
| dv | Write a true statement about the content of Slide 64 of Chapter 9 |
| dw | Write a false statement about the content of Slide 0 of Chapter 7 |
| dx | Write a true statement about the content of Slide 23 of Chapter 5 |