

1.

Host: 192.168.1.101

Dest: 143.89.14.34

Source	Destination
192.168.1.101	143.89.14.34

2.

ICMP runs on the network layer, not the application layer.

3.

Type: 8 (Echo (ping) request)

Code Number: 0

Num checksum bytes: 2

Num sequence bytes: 2

Num identifier bytes: 2

```
Frame 3: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface 0
Ethernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: LinksysG_da:af:73 (00:06:25:da:af:73)
Internet Protocol Version 4, Src: 192.168.1.101, Dst: 143.89.14.34
Internet Control Message Protocol
  Type: 8 (Echo (ping) request)
  Code: 0
  Checksum: 0xe45a [correct]
  [Checksum Status: Good]
  Identifier (BE): 512 (0x0200)
  Identifier (LE): 2 (0x0002)
  Sequence Number (BE): 26369 (0x6701)
  Sequence Number (LE): 359 (0x0167)
  [Response frame: 4]
  Data (32 bytes)
```

4:

Type: 0 (Echo (ping) reply)

Code: 0

Each field is 2 bytes

```
Frame 4: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface 0
Ethernet II, Src: LinksysG_da:af:73 (00:06:25:da:af:73), Dst: Dell_4f:36:23 (00:08:74:4f:36:23)
Internet Protocol Version 4, Src: 143.89.14.34, Dst: 192.168.1.101
Internet Control Message Protocol
  Type: 0 (Echo (ping) reply)
  Code: 0
  Checksum: 0xec5a [correct]
  [Checksum Status: Good]
  Identifier (BE): 512 (0x0200)
  Identifier (LE): 2 (0x0002)
  Sequence Number (BE): 26369 (0x6701)
  Sequence Number (LE): 359 (0x0167)
  [Request frame: 3]
  [Response time: 413.442 ms]
  Data (32 bytes)
```

5:

Host: 192.168.1.101

Dest: 138.96.146.2

Source	Destination
192.168.1.101	138.96.146.2

6.

No, it would be 0x11

7.

No, it's the same

8

It contains the header and the info contained the in the initial ICMP packet

```
▼ Internet Control Message Protocol
  Type: 11 (Time-to-live exceeded)
  Code: 0 (Time to live exceeded in transit)
  Checksum: 0x2c16 [correct]
  [Checksum Status: Good]
  Unused: 00000000
  ▶ Internet Protocol Version 4, Src: 192.168.1.101, Dst: 138.96.146.2
  ▼ Internet Control Message Protocol
    Type: 8 (Echo (ping) request)
    Code: 0
    Checksum: 0x51fe [unverified] [in ICMP error packet]
    [Checksum Status: Unverified]
    Identifier (BE): 512 (0x0200)
    Identifier (LE): 2 (0x0002)
    Sequence Number (BE): 41985 (0xa401)
    Sequence Number (LE): 420 (0x01a4)
```

9.

They are all type 0 instead of 11 because TTL did not expire.

10.

There is not one that is significantly longer.