

A.

1.

```
C:\Users\Xiaomi>nslookup huawei.com
ТхЁтхЁ: UnKnown
Address: 192.168.0.1

Не заслуживающий доверия ответ:
Лб : huawei.com
Addresses: 2407:c080:17ef:ffff::7274:d206
121.37.49.12
```

2.

```
C:\Users\Xiaomi>nslookup -type=ns epfl.ch
ТхЁтхЁ: UnKnown
Address: 192.168.0.1

Не заслуживающий доверия ответ:
epfl.ch nameserver = stisun1.epfl.ch
epfl.ch nameserver = stisun2.epfl.ch

stisun1.epfl.ch internet address = 128.178.15.8
stisun2.epfl.ch internet address = 128.178.15.7
stisun1.epfl.ch AAAA IPv6 address = 2001:620:618:10f:1:80b2:f08:1
stisun2.epfl.ch AAAA IPv6 address = 2001:620:618:10f:1:80b2:f07:1
```

3.

```
C:\Users\Xiaomi>nslookup yandex.ru
ТхЁтхЁ: UnKnown
Address: 192.168.0.1

Не заслуживающий доверия ответ:
Лб : yandex.ru
Addresses: 2a02:6b8:a::a
77.88.55.50
77.88.55.55
5.255.255.88
5.255.255.80
```

```
C:\Users\Xiaomi>nslookup spbu.ru
ТхЁтхЁ: UnKnown
Address: 192.168.0.1

Лб : spbu.ru
Address: 195.70.219.101
```

Б.

1. UDP
2. "Dst Port: 53"
3. 192.168.0.1, да, одинаковы
4. "Type: A (Host Address) (1)". Не содержатся
5. 3 ответа:

```
▼ Answers
  ▼ www.ietf.org: type CNAME, class IN, cname www.ietf.org.cdn.cloudflare.net
    Name: www.ietf.org
    Type: CNAME (Canonical NAME for an alias) (5)
    Class: IN (0x0001)
    Time to live: 591 (9 minutes, 51 seconds)
    Data length: 33
    CNAME: www.ietf.org.cdn.cloudflare.net
  ▼ www.ietf.org.cdn.cloudflare.net: type A, class IN, addr 104.16.45.99
    Name: www.ietf.org.cdn.cloudflare.net
    Type: A (Host Address) (1)
    Class: IN (0x0001)
    Time to live: 228 (3 minutes, 48 seconds)
    Data length: 4
    Address: 104.16.45.99
  ▼ www.ietf.org.cdn.cloudflare.net: type A, class IN, addr 104.16.44.99
    Name: www.ietf.org.cdn.cloudflare.net
    Type: A (Host Address) (1)
    Class: IN (0x0001)
    Time to live: 228 (3 minutes, 48 seconds)
    Data length: 4
    Address: 104.16.44.99
```

6. Да, "addr 104.16.44.99"
7. Не выполняет, так как хост не выполняет больше никаких DNS запросов

B.

1. 53, 53
2. Да
3. Type: AAAA (IPv6 Address) (28), Ответы не содержатся
4. 0 ответов

dns && ip.addr == 192.168.0.100

No.	Time	Source	Destination	Protocol	Length	Info
374	2022-03-19 18:27:22,473065	192.168.0.100	192.168.0.1	DNS	84	Standard query 0x0001 PTR 1.0.168.192.in-addr.arpa
375	2022-03-19 18:27:22,477008	192.168.0.1	192.168.0.100	DNS	139	Standard query response 0x0001 No such name PTR 1.0.168.192.in-
376	2022-03-19 18:27:22,478276	192.168.0.100	192.168.0.1	DNS	67	Standard query 0x0002 A spbu.ru
377	2022-03-19 18:27:22,480414	192.168.0.1	192.168.0.100	DNS	153	Standard query response 0x0002 A spbu.ru A 195.70.219.101 NS ns
378	2022-03-19 18:27:22,480786	192.168.0.100	192.168.0.1	DNS	67	Standard query 0x0003 AAAA spbu.ru
379	2022-03-19 18:27:22,482606	192.168.0.1	192.168.0.100	DNS	120	Standard query response 0x0003 AAAA spbu.ru SOA ns.pu.ru

> Frame 378: 67 bytes on wire (536 bits), 67 bytes captured (536 bits) on interface \Device\NPF_{AFA1B8C0-2747-48C5-815A-D8DE55689840}, id 0
> Ethernet II, Src: IntelCor_86:5b:64 (64:5d:86:86:5b:64), Dst: TP-Link_4a:ce:99 (c0:06:c3:4a:ce:99)
> Internet Protocol Version 4, Src: 192.168.0.100, Dst: 192.168.0.1
▼ User Datagram Protocol, Src Port: 61797, Dst Port: 53
 Source Port: 61797
 Destination Port: 53
 Length: 33
 Checksum: 0x120a [unverified]
 [Checksum Status: Unverified]
 [Stream index: 4]
 [Timestamps]

0020 00 01 f1 65 00 35 00 21 12 0a 00 03 01 00 00 01 ... e 5 !
0030 00 00 00 00 00 00 04 73 70 62 75 02 72 75 00 00 s pbu.ru
0040 1c 00 01

User Datagram Protocol (udp), 8 byte(s) | Пакеты: 776 · Показаны: 6 (0.8%) · Потеряно: 0 (0.0%) | Профиль: Default

Г.

1. 192.168.0.1, Да, совпадают
2. Type: NS (authoritative Name Server) (2), Ответов нет
3. ns.pu.ru, ns2.pu.ru. Адресов нет

No.	Time	Source	Destination	Protocol	Length	Info
354	2022-03-19 18:36:33,052353	192.168.0.100	192.168.0.1	DNS	79	Standard query 0x76c8 A stats.vk-portal.net
355	2022-03-19 18:36:33,055732	192.168.0.1	192.168.0.100	DNS	327	Standard query response 0x76c8 A stats.vk-portal.net A 87.240.1
853	2022-03-19 18:36:40,551964	192.168.0.100	192.168.0.1	DNS	84	Standard query 0x0001 PTR 1.0.168.192.in-addr.arpa
855	2022-03-19 18:36:40,556952	192.168.0.1	192.168.0.100	DNS	139	Standard query response 0x0001 No such name PTR 1.0.168.192.in-
856	2022-03-19 18:36:40,558352	192.168.0.100	192.168.0.1	DNS	67	Standard query 0x0002 NS spbu.ru
857	2022-03-19 18:36:40,559848	192.168.0.1	192.168.0.100	DNS	137	Standard query response 0x0002 NS spbu.ru NS ns.pu.ru NS ns2.pu

Answers

spbu.ru: type NS, class IN, ns ns.pu.ru

Name: spbu.ru

Type: NS (authoritative Name Server) (2)

Class: IN (0x0001)

Time to live: 3600 (1 hour)

Data length: 8

Name Server: ns.pu.ru

spbu.ru: type NS, class IN, ns ns2.pu.ru

Name: spbu.ru

Type: NS (authoritative Name Server) (2)

Class: IN (0x0001)

Time to live: 3600 (1 hour)

Data length: 6

Name Server: ns2.pu.ru

Д.

1. 195.70.196.210, не совпадает, ns2.pu.ru
2. Type: AAAA (IPv6 Address) (28), Ответы не содержатся
3. 0 ответов

dns && ip.addr == 192.168.0.100

No.	Time	Source	Destination	Protocol	Length	Info
176	2022-03-19 18:43:37,370327	192.168.0.100	192.168.0.1	DNS	69	Standard query 0x5e33 A ns2.pu.ru
177	2022-03-19 18:43:37,371941	192.168.0.1	192.168.0.100	DNS	132	Standard query response 0x5e33 A ns2.pu.ru A 195.70.196.210 NS
178	2022-03-19 18:43:37,374908	192.168.0.100	195.70.196.210	DNS	87	Standard query 0x0001 PTR 210.196.70.195.in-addr.arpa
180	2022-03-19 18:43:37,376634	195.70.196.210	192.168.0.100	DNS	173	Standard query response 0x0001 PTR 210.196.70.195.in-addr.arpa
181	2022-03-19 18:43:37,377927	192.168.0.100	195.70.196.210	DNS	67	Standard query 0x0002 A spbu.ru
182	2022-03-19 18:43:37,380301	195.70.196.210	192.168.0.100	DNS	153	Standard query response 0x0002 A spbu.ru A 195.70.219.101 NS ns
183	2022-03-19 18:43:37,380686	192.168.0.100	195.70.196.210	DNS	67	Standard query 0x0003 AAAA spbu.ru
184	2022-03-19 18:43:37,382150	195.70.196.210	192.168.0.100	DNS	120	Standard query response 0x0003 AAAA spbu.ru SOA ns.pu.ru

Answer RRs: 0
Authority RRs: 0
Additional RRs: 0

Queries

- spbu.ru: type AAAA, class IN
 - Name: spbu.ru
 - [Name Length: 7]
 - [Label Count: 2]
 - Type: AAAA (IPv6 Address) (28)
 - Class: IN (0x0001)

[Response In: 184]

0020 c4 d2 cf 0d 00 35 00 21 6c f2 00 03 01 00 00 015!1.....
0030 00 00 00 00 00 00 04 73 70 62 75 02 72 75 00 00s pbu.ru..
0040 16 00 01

Query Type (dns.qry.type), 2 byte(s) | Пакеты: 250 · Показаны: 8 (3.2%) · Потеряно: 0 (0.0%) | Профиль: Default