

Original datagram:

$$TL = 472 \quad MTU = 280 \quad IHL = 20 \quad (IHL * 4)$$

$$\text{Num fragments} = (TL - IHL) / (MTU - IHL) = 452 / 260 = 1.74 \text{ or } 2$$

$$\begin{aligned} NFB &= \text{INT} ((MTU - IHL) / 8) \\ &= \text{INT} ((280 - 20) / 8) = 260 / 8 = 32.5, \text{ take INT of this} \\ &= 32 \end{aligned}$$

Fragment 1:

$$\text{packet data} = NFB * 8 \text{ octets} = 256$$

$$TL = \text{data} + IHL = 276$$

$$FO = (\text{Fragment \#} - 1) * NFB = 0$$

Fragment 2:

$$\text{remaining data} = 452 - 256 = 196 \text{ data}$$

$$TL = \text{data} + IHL = 196 + 20 = 216$$

$$FO = (\text{Fragment \#} - 1) * NFB = 32$$