Instructions. Doing IPv4 subnet calculations has great value in enhancing the understanding of not only the fundamental aspects of networks but also how computers operate. Subnet calculators give you answers, but they don't provide understanding. Use a website such as <a href="https://subnetipv4.com/">https://subnetipv4.com/</a> to generate 10 random IP addresses and complete this worksheet.

Item 🔽	Decimal Notation 🔻	Ŧ	1st Octect	¥	2nd Octect	3rd Octect	4th Octect
IPv4	202.229.131.231 /18		1100 1010		1110 0101	1000 0011	1110 0111
Mask	255.255.192.0		1111 1111		1111 1111	1100 0000	0000 0000
Network ID	202.229.128.0		1100 1010		1110 0101	1000 0000	0000 0000
1st Usable Host	202.229.128.1		1100 1010		1110 0101	1000 0000	0000 0001
Broadcast Address	202.229.191.255		1100 1010		1110 0101	1011 1111	1111 1111
Last Usable Host	202.229.191.254		1100 1010		1110 0101	1011 1111	1111 1110

Figure 1 = Example

Item	¥	Decimal Notation	▼ ▼	1st Octect 🔽	2nd Octect 🔽	3rd Octect 🔽	4th Octect 🔽
IPv4							
Mask							
Network ID							
1st Usable Host	t						
Broadcast Addr	ess						
Last Usable Hos	st					_	

# Problem #2

Item	¥	Decimal Notation	<b>T</b>	1st Octect 🔽	2nd Octect	3rd Octect 🔽	4th Octect 🔽
IPv4							
Mask							
Network ID							
1st Usable Host							
Broadcast Addre	ess						
Last Usable Hos	t						

Item	¥	<b>Decimal Notation</b>	<b>T</b>	1st Octect	2nd Octect 🔽	3rd Octect	4th Octect 🔽
IPv4							
Mask							
Network ID							
1st Usable Host							
Broadcast Addre	SS						
Last Usable Host					_		

## Problem #4

Item	¥	Decimal Notation	¥ 7	¥	1st Octect	2nd Octect 🔽	3rd Octect	4th Octect
IPv4								
Mask								
Network ID								
1st Usable Host								
Broadcast Addres	SS							
Last Usable Host								

Item	¥	<b>Decimal Notation</b>	<b>T</b>	1st Octect	2nd Octect 🔽	3rd Octect	4th Octect 🔽
IPv4							
Mask							
Network ID							
1st Usable Host							
Broadcast Addre	ess						
Last Usable Hos	t						

# Problem #6

Item	¥	Decimal Notation	<b>T</b>	1st Octect 🔽	2nd Octect	3rd Octect 🔽	4th Octect 🔽
IPv4							
Mask							
Network ID							
1st Usable Host							
Broadcast Addre	ess						
Last Usable Hos	t						

Item	¥	<b>Decimal Notation</b>	<b>T</b>	1st Octect	2nd Octect 🔽	3rd Octect	4th Octect 🔽
IPv4							
Mask							
Network ID							
1st Usable Host							
Broadcast Addre	SS						
Last Usable Host					_		

# Problem #8

Item	¥	Decimal Notation	_	1st Octect	2nd Octect 🔽	3rd Octect 🔽	4th Octect 🔽
IPv4							
Mask							
Network ID							
1st Usable Host	•						
Broadcast Addr	ess						
Last Usable Hos	it						

Item	¥	<b>Decimal Notation</b>	<b>T</b>	1st Octect	2nd Octect 🔽	3rd Octect	4th Octect 🔽
IPv4							
Mask							
Network ID							
1st Usable Host							
Broadcast Addre	SS						
Last Usable Host					_		

Item	¥	Decimal Notation	_	1st Octect	2nd Octect 🔽	3rd Octect 🔽	4th Octect 🔽
IPv4							
Mask							
Network ID							
1st Usable Host	•						
Broadcast Addr	ess						
Last Usable Hos	it						