

수험자 이름:

채점자 이름:

점수:

채점시 반드시 틀린부분을 체크해서 정답을 옆에 적어주세요

## 1. netflix\_titles의 데이터가 아래와 같습니다.

```
[show_id|type|title|director|cast|country|date_added|release_year|rating|duration|listed_in|description
0|s1|Movie|Dick Johnson Is Dead|Kirsten Johnson|United States|September 25, 2021|2020|PG-13|90 min|Documentaries|As her father nears the end of his life, t
1|s2|TV Show|Blood & Water|Ama Qamata, Khosi Ngema, Gail Mabalane, Thabang Molaba, Dillon Windvogel, Natasha Thahane, Arno Greeff, Xolile Tshabalal
2|s3|TV Show|Ganglands|Julien Leclercq|Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabiha Akkari, Sofia Lesaffre, Salim Kechiouche, Noureddine Farihi, Geert Vi
3|s4|TV Show|Jailbirds New Orleans|September 24, 2021|2021|TV-MA|1 Season|Docuseries, Reality TV|Feuds, flirtations and toilet talk go down among the inc
4|s5|TV Show|Kota Factory|Mayur More, Jitendra Kumar, Ranjan Raj, Alam Khan, Ahsaas Channa, Revathi Pillai, Urvi Singh, Arun Kumar|India|September 24, 2021|20
5|s6|TV Show|Midnight Mass|Mike Flanagan|Kate Siegel, Zach Gilford, Hamish Linklater, Henry Thomas, Kristin Lehman, Samantha Sloan, Igby Rigney, Rahul K
6|s7|Movie|My Little Pony: A New Generation|Robert Cullen, José Luis Ucha|Vanessa Hudgens, Kimiko Glenn, James Marsden, Sofia Carson, Liza Koshy, Ken Jec
7|s8|Movie|Sankofa|Haile Gerima|Kofi Ghanaba, Oyafunmike Ogunlano, Alexandra Duah, Nick Medley, Mutabaruka, Afemo Omilami, Reggie Carter, Mzuril|Unit
8|s9|TV Show|The Great British Baking Show|Andy Devonshire|Mel Giedroyc, Sue Perkins, Mary Berry, Paul Hollywood|United Kingdom|September 24, 2021|202
9|s10|Movie|The Starling|Theodore Melfi|Melissa McCarthy, Chris O'Dowd, Kevin Kline, Timothy Olyphant, Daveed Diggs, Skyler Gisondo, Laura Harrier, Rosalin
10|s11|TV Show|Vendetta: Truth, Lies and The Mafia|September 24, 2021|2021|TV-MA|1 Season|Crime TV Shows, Docuseries, International TV Shows|Sicily bo
11|s12|TV Show|Bangkok Breaking|Kongkiat Komesiri|Sukollawat Kanarot, Sushar Manaying, Pavarit Mongkolpisit, Sahajak Boonthanakit, Suthipongse Thatphit
12|s13|Movie|Je Suis Karl|Christian Schwochow|Luna Wedler, Jannis Niewöhner, Milan Peschel, Edin Hasanović, Anna Fialová, Marlon Boess, Victor Boccad, Fle
13|s14|Movie|Confessions of an Invisible Girl|Bruno Garotti|Klara Castanho, Lucca Picon, Júlia Gomes, Marcus Bessa, Kiria Malheiros, Fernanda Concon, Gabriel
14|s15|TV Show|Crime Stories: India Detectives|September 22, 2021|2021|TV-MA|1 Season|British TV Shows, Crime TV Shows, Docuseries|Cameras following R
```

다음과 같이 데이터를 만들고자 한다면 어떻게 해야 하는지 빈 칸을 채우세요.

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-13	90 min	Documentaries	As her father nears the end of his life, filmm...
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thaban...	South Africa	September 24, 2021	2021	TV-MA	2 Seasons	International TV Shows, TV Dramas, TV Mysteries	After crossing paths at a party, a Cape Town t...
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	September 24, 2021	2021	TV-MA	1 Season	Crime TV Shows, International TV Shows, TV Act...	To protect his family from a powerful drug lor...
3	s4	TV Show	Jailbirds New Orleans	NaN	NaN	NaN	September 24, 2021	2021	TV-MA	1 Season	Docuseries, Reality TV	Feuds, flirtations and toilet talk go down amo...
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021	TV-MA	2 Seasons	International TV Shows, Romantic TV Shows, TV ...	In a city of coaching centers known to train l...

답:

```
netflix = pd.read_csv("data/netflix_titles.csv", sep="|", index_col=0)
```

```
netflix.head()
```

2~9.

아래와 같이 pandas를 활용하여 데이터를 불러왔습니다.

```
import pandas as pd
houses = pd.read_csv("data/kc_house_data.csv")
titanic = pd.read_csv("data/titanic.csv")
netflix = pd.read_csv("data/netflix_titles.csv", sep="|", index_col=0)
```

titanic.head()

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	cabin	embarked	boat	body	home.dest
0	1	1	Allen, Miss. Elisabeth Walton	female	29	0	0	24160	211.3375	B5	S	2	?	St Louis, MO
1	1	1	Allison, Master. Hudson Trevor	male	0.9167	1	2	113781	151.55	C22 C26	S	11	?	Montreal, PQ / Chesterville, ON
2	1	0	Allison, Miss. Helen Loraine	female	2	1	2	113781	151.55	C22 C26	S	?	?	Montreal, PQ / Chesterville, ON
3	1	0	Allison, Mr. Hudson Joshua Creighton	male	30	1	2	113781	151.55	C22 C26	S	?	135	Montreal, PQ / Chesterville, ON
4	1	0	Allison, Mrs. Hudson J C (Bessie Waldo Daniels)	female	25	1	2	113781	151.55	C22 C26	S	?	?	Montreal, PQ / Chesterville, ON

houses.head()

	id	date	price	bedrooms	bathrooms	sqft_living	sqft_lot	floors	waterfront	view	...	grade	sqft_above	sqft_basement	yr_built	yr_renovated
0	7129300520	20141013T000000	221900.0	3	1.00	1180	5650	1.0	0	0	...	7	1180	0	1955	
1	6414100192	20141209T000000	538000.0	3	2.25	2570	7242	2.0	0	0	...	7	2170	400	1951	
2	5631500400	20150225T000000	180000.0	2	1.00	770	10000	1.0	0	0	...	6	770	0	1933	
3	2487200875	20141209T000000	604000.0	4	3.00	1960	5000	1.0	0	0	...	7	1050	910	1965	
4	1954400510	20150218T000000	510000.0	3	2.00	1680	8080	1.0	0	0	...	8	1680	0	1987	

netflix.head()

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020	PG-13	90 min	Documentaries	As her father nears the end of his life, filmm...
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2. houses 데이터 내에서 가장 높은 판매가를 출력하세요.

답: houses.price.max()

3. 아래와 같이 출력되도록 하세요.

	id	price	bedrooms	bathrooms	sqft_living	sqft_lot	floors	waterfront	view	condition	grade
count	2.161300e+04	2.161300e+04	21613.000000	21613.000000	21613.000000	2.161300e+04	21613.000000	21613.000000	21613.000000	21613.000000	21613.000000
mean	4.580302e+09	5.400881e+05	3.370842	2.114757	2079.899736	1.510697e+04	1.494309	0.007542	0.234303	3.409430	7.656873
std	2.876566e+09	3.671272e+05	0.930062	0.770163	918.440897	4.142051e+04	0.539989	0.086517	0.766318	0.650743	1.175459
min	1.000102e+06	7.500000e+04	0.000000	0.000000	290.000000	5.200000e+02	1.000000	0.000000	0.000000	1.000000	1.000000
25%	2.123049e+09	3.219500e+05	3.000000	1.750000	1427.000000	5.040000e+03	1.000000	0.000000	0.000000	3.000000	7.000000
50%	3.904930e+09	4.500000e+05	3.000000	2.250000	1910.000000	7.618000e+03	1.500000	0.000000	0.000000	3.000000	7.000000
75%	7.308900e+09	6.450000e+05	4.000000	2.500000	2550.000000	1.068800e+04	2.000000	0.000000	0.000000	4.000000	8.000000
max	9.900000e+09	7.700000e+06	33.000000	8.000000	13540.000000	1.651359e+06	3.500000	1.000000	4.000000	5.000000	13.000000

답: houses.describe()

4. 타이타닉 탑승자 중 가장 연장자 순서대로 7명을 출력하도록 하는 코드입니다. 빈칸을 채우세요.

```
titanic['age'] = pd.to_numeric(titanic['age'], errors = 'coerce')
```

```
oldest_passengers = titanic.nlargest(7, 'age')
```

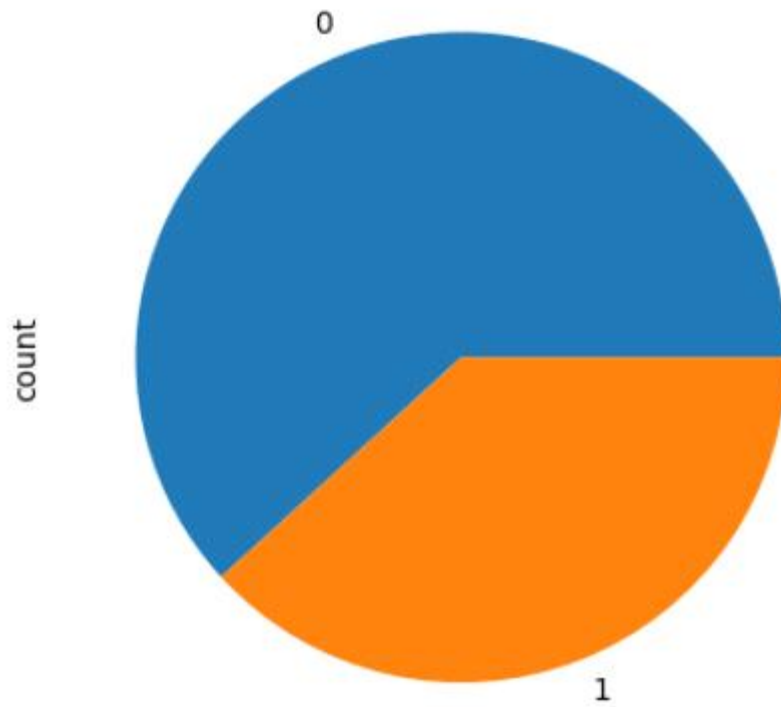
```
oldest_passengers
```

	pclass	survived		name	sex	age	sibsp	parch		ticket	fare	cabin	embarked	boat	body	home.dest
14	1	1		Barkworth, Mr. Algernon Henry Wilson	male	80.0	0	0		27042	30	A23	S	B	?	Hessle, Yorks
61	1	1		Cavendish, Mrs. Tyrell William (Julia Florence...	female	76.0	1	0		19877	78.85	C46	S	6	?	Little Onn Hall, Staffs
1235	3	0		Svensson, Mr. Johan	male	74.0	0	0		347060	7.775	?	S	?	?	?
9	1	0		Artagaveytia, Mr. Ramon	male	71.0	0	0		PC 17609	49.5042	?	C	?	22	Montevideo, Uruguay
135	1	0		Goldschmidt, Mr. George B	male	71.0	0	0		PC 17754	34.6542	A5	C	?	?	New York, NY
727	3	0		Connors, Mr. Patrick	male	70.5	0	0		370369	7.75	?	Q	?	171	?
81	1	0		Crosby, Capt. Edward Gifford	male	70.0	1	1		WE/P 5735	71	B22	S	?	269	Milwaukee, WI

5. 타이타닉 탑승자 전체의 생존여부 비율을 나타낸 그래프입니다. 빈칸을 작성하세요.

```
titanic.survived.value_counts().plot(kind="pie")
```

<Axes: ylabel='count'>



6. houses데이터에서 방이 10개 이상인 데이터를 아래와 같이 불러오도록 빈칸을 채우세요.

```
houses[houses['bedrooms'] >= 10]
```

	id	date	price	bedrooms	bathrooms	sqft_living	sqft_lot	floors	waterfront	view	...	grade	sqft_above	sqft_basement	yr_built
8757	1773100755	20140821T000000	520000.0	11	3.00	3000	4960	2.0	0	0	...	7	2400	600	1918
13314	627300145	20140814T000000	1148000.0	10	5.25	4590	10920	1.0	0	2	...	9	2500	2090	2008
15161	5566100170	20141029T000000	650000.0	10	2.00	3610	11914	2.0	0	0	...	7	3010	600	1958
15870	2402100895	20140625T000000	640000.0	33	1.75	1620	6000	1.0	0	0	...	7	1040	580	1947
19254	8812401450	20141229T000000	660000.0	10	3.00	2920	3745	2.0	0	0	...	7	1860	1060	1913

7. titanic 데이터에서 사망한 여성 데이터를 추출합니다. 아래 빈칸을 채우세요.

```
women = titanic.sex == 'female'
death = titanic.survived == 0
titanic[women & death]
```

pclass	survived	name	sex	age	sibsp	parch	ticket	fare	cabin	embarked	boat	body	h	
2	1	0	Allison, Miss. Helen Loraine	female	2	1	2	113781	151.55	C22 C26	S	?	?	Mon Chest
4	1	0	Allison, Mrs. Hudson J C (Bessie Waldo Daniels)	female	25	1	2	113781	151.55	C22 C26	S	?	?	Mon Chest
105	1	0	Evans, Miss. Edith Corse	female	36	0	0	PC 17531	31.6792	A29	C	?	?	New
169	1	0	Isham, Miss. Ann Elizabeth	female	50	0	0	PC 17595	28.7125	C49	C	?	?	Paris, France
286	1	0	Straus, Mrs. Isidor (Rosalie Ida Blun)	female	63	1	0	PC 17483	221.7792	C55 C57	S	?	?	New
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1273	3	0	Vander Planke, Miss. Augusta Maria	female	18	2	0	345764	18	?	S	?	?	
1276	3	0	Vander Planke, Mrs. Julius (Emelia Maria Vande...	female	31	1	0	345763	18	?	S	?	?	
1279	3	0	Vestrom, Miss. Hulda Amanda Adolfina	female	14	0	0	350406	7.8542	?	S	?	?	
1304	3	0	Zabour, Miss. Hileni	female	14.5	1	0	2665	14.4542	?	C	?	328	
1305	3	0	Zabour, Miss. Thamine	female	?	1	0	2665	14.4542	?	C	?	?	

8. 수변에 위치하고 가격이 500000미만인 집 정보를 추출합니다. 아래 빈칸을 채우세요.

답: `houses[(houses["waterfront"] == 1) & (houses["price"] < 500000)]`

	id	date	price	bedrooms	bathrooms	sqft_living	sqft_lot	floors	waterfront	view	...	gr:
264	2123039032	20141027T000000	369900.0	1	0.75	760	10079	1.0	1	4	...	
1168	3523029041	20141009T000000	290000.0	2	0.75	440	8313	1.0	1	3	...	
1949	1922039062	20150420T000000	480000.0	2	1.50	1008	26487	1.0	1	4	...	
3829	8550001515	20141001T000000	429592.0	2	2.75	1992	10946	1.5	1	4	...	
6102	222029026	20140917T000000	340000.0	2	0.75	1060	48292	1.0	1	2	...	
8277	221029019	20150428T000000	400000.0	3	2.50	2090	32718	2.0	1	4	...	
8450	121039042	20150313T000000	425000.0	3	2.75	3610	107386	1.5	1	3	...	
11556	2013802030	20140911T000000	357000.0	3	2.00	2460	53882	1.0	1	4	...	
14827	2423029009	20140617T000000	465000.0	2	2.00	1494	19271	2.0	1	4	...	
16570	2923039243	20141113T000000	340000.0	4	1.00	1200	11834	1.0	1	3	...	
18275	2781600195	20141117T000000	285000.0	1	1.00	1060	54846	1.0	1	4	...	
18848	7631800110	20140918T000000	380000.0	3	2.50	1980	17342	2.0	1	4	...	
19002	5216200090	20140616T000000	385000.0	2	1.00	830	26329	1.0	1	3	...	

13 rows × 21 columns



9. titanic 데이터에서 생존한 자들 중 동행가족의 인원수가 가장 많은 순서대로 데이터를 정렬하는 코드입니다. 빈칸을 채우세요.

답:        `titanic[titanic["survived"] == 1].sort_values("acco_family", ascending= False)`

	pclass	survived	name	sex	age	sibsp	parch	acco_family	ticket	fare	cabin	embarked	boat	body	home.dest
641	3	1	Asplund, Master. Edwin Rojj Felix	male	3	4	2	6	347077	31.3875	?	S	15	?	Sweden Worcester, MA
643	3	1	Asplund, Miss. Lillian Gertrud	female	5	4	2	6	347077	31.3875	?	S	15	?	Sweden Worcester, MA
646	3	1	Asplund, Mrs. Carl Oscar (Selma Augusta Emilia...	female	38	1	5	6	347077	31.3875	?	S	15	?	Sweden Worcester, MA
625	3	1	Andersson, Miss. Erna Alexandra	female	17	4	2	6	3101281	7.925	?	S	D	?	Ruotsinphyhtaa, Finland New York, NY
112	1	1	Fortune, Miss. Ethel Flora	female	28	3	2	5	19950	263	C23 C25 C27	S	10	?	Winnipeg, MB
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1236	3	1	Svensson, Mr. Johan Cervin	male	14	0	0	0	7538	9.225	?	S	13	?	?
1233	3	1	Sundman, Mr. Johan Julian	male	44	0	0	0	STON/O 2. 3101269	7.925	?	S	15	?	?
1232	3	1	Sunderland, Mr. Victor Francis	male	16	0	0	0	SOTON/OQ 392089	8.05	?	S	B	?	?
1228	3	1	Stranden, Mr. Juho	male	31	0	0	0	STON/O 2. 3101288	7.925	?	S	9	?	?
1223	3	1	Stanley, Miss. Amy Zillah Elsie	female	23	0	0	0	CA. 2314	7.55	?	S	C	?	?

500 rows × 15 columns