Recommender Systems

TOTAL POINTS 9

1. Recommending items based on **global popularity** can (*check all that apply*): `1 point`

   ☐ **provide personalization**

   ☐ **capture context (e.g., time of day)**

   ☑ **none of the above**

2. Recommending items using a **classification** approach can (*check all that apply*): `1 point`

   ☑ **provide personalization**

   ☑ **capture context (e.g., time of day)**

   ☐ **none of the above**

3. Recommending items using a **simple count based co-occurrence matrix** can (*check all that apply*): `1 point`

   ☑ **provide personalization**

   ☐ **capture context (e.g., time of day)**

   ☐ **none of the above**

4. Recommending items using **featurized matrix factorization** can (*check all that apply*): `1 point`

   ☑ **provide personalization**

   ☑ **capture context (e.g., time of day)**

   ☐ **none of the above**

5. Normalizing co-occurrence matrices is used primarily to account for: `1 point`

   ○ **people who purchased many items**

   ◉ **items purchased by many people**

   ○ **eliminating rare products**

   ○ **none of the above**

6. A store has 3 customers and 3 products. Below are the learned feature vectors for each user and product. Based on this estimated model, which product would you recommend most highly to *User #2*? `1 point`

User ID	Feature vector
1	(1.73, 0.01, 5.22)
2	(0.03, 4.41, 2.05)
3	(1.13, 0.89, 3.76)

Product ID	Feature vector
1	(3.29, 3.44, 3.67)
2	(0.82, 9.71, 3.88)
3	(8.34, 1.72, 0.02)

   ○ **Product #1**

   ◉ **Product #2**

   ○ **Product #3**

7. For the liked and recommended items displayed below, calculate the **recall** and round to 2 decimal points. (*As in the lesson, green squares indicate recommended items, magenta squares are liked items. Items not recommended are grayed out for clarity.*) Note: enter your answer in American decimal format (e.g. enter 0.98, not 0,98) `1 point`

   0.33

8. For the liked and recommended items displayed below, calculate the **precision** and round to 2 decimal points. (*As in the lesson, green squares indicate recommended items, magenta squares are liked items. Items not recommended are grayed out for clarity.*) Note: enter your answer in American decimal format `1 point`
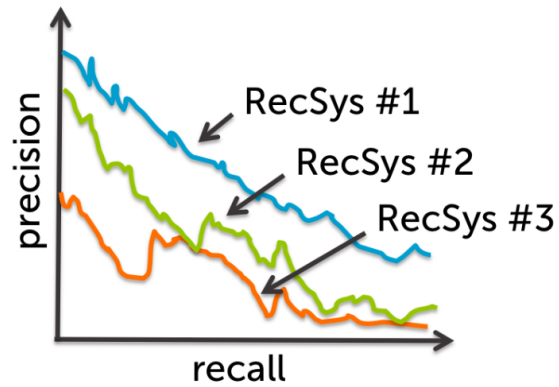
```
0,25
```

9. Based on the precision-recall curves in the figure below, which recommender would you use?   1 point

- ● **RecSys #1**
- ○ **RecSys #2**
- ○ **RecSys #3**

Save   Submit