Congratulations! You passed!
TO PASS 80% or higher

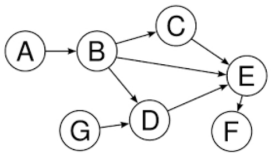
Keep Learning
Retake the assignment in **7h 57m**

GRADE
100%

Introduction to Graphs

LATEST SUBMISSION GRADE
100%

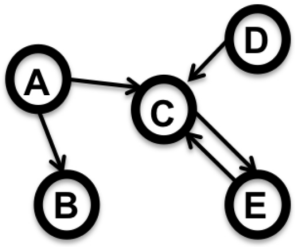
1. Which of the following are graphs? (check all that apply) **1 / 1 point**

- [x] 

Correct

- [ ] 

2. Which of the following is the correct adjacency matrix for this graph? **1 / 1 point**



- (•) To / From

	A	B	C	D	E
A	0	1	1	0	0
B	0	0	0	0	0
C	0	0	0	0	1
D	0	0	1	0	0
E	0	0	1	0	0

- ( ) To / From

	A	B	C	D	E
A	0	0	0	0	0
B	1	0	0	0	0
C	1	0	0	0	1

- ○ Neither option is correct.

✓ **Correct**

3. Which of the following content would be objects (or nodes) in a graph that represents the activity in a facebook page? **1 / 1 point**

- ☐ Created_post (the action of creating a post)
- ☑ comment text

✓ **Correct**

- ☑ location

✓ **Correct**

- ☐ friends (the action of making someone your friend)
- ☑ post text

✓ **Correct**

4. Based on the videos, which kinds of analysis might one be able to perform on a tweet graph? **1 / 1 point**

- ☑ find interacting groups of users

✓ **Correct**
Review this at the end of this video.

- ☑ find influencers in a twitter community

✓ **Correct**
Review this at the end of this video.

- ☑ extract conversation threads

✓ **Correct**
Review this at the end of this video.

5. The key reason mentioned in the video that biology applications need Big Data analytics is... **1 / 1 point**

- ◉ The integration of multiple data sources from different researchers and of different sources of information.
- ○ The complexity of interactions that correlate to inform phenotypes.
- ○ The new use of computational techniques to explore new areas of biology research more quickly than can be done with "live" or wetlab experiments.

✓ **Correct**
Integration of multiple data sets, especially from different sources and different types gets at one of the core concepts that underlies the need for Big Data -- integration.

6. Which of the Vs BEST describes the result in constant increasing in the number of edges in a graph, sometimes causing challenges in knowing when one has found "an answer" to one's analysis question? **1 / 1 point**

- ○ Valence
- ◉ Velocity
- ○ Variety
- ○ Volume

✓ **Correct**

7. Which of the Vs results in increased algorithmic complexity (which can cause analyses to not be able to finish running in reasonable amounts of time)? **1 / 1 point**

- (•) Volume
- ( ) Valence
- ( ) Variety
- ( ) Velocity

✓ **Correct**

8. Which of the Vs results in challenges due to graphs created from varying kinds, formats, sources, and meanings of data? **1 / 1 point**

- ( ) Valence
- (•) Variety
- ( ) Velocity
- ( ) Volume

✓ **Correct**

9. Which of the Vs causes increased interconnectivity of a graph -- which can cause problems in analysis due to density? **1 / 1 point**

- (•) Valence
- ( ) Volume
- ( ) Velocity
- ( ) Variety

✓ **Correct**

10. Updating a graph with a stream of posting information on facebook is an example of which of the Vs? **1 / 1 point**

- (•) Velocity
- ( ) Volume
- ( ) Variety
- ( ) Valence

✓ **Correct**

11. Studying Amarnath's gmail interactions over time (as gmail started to be used by more and more people) is BEST defined as an impact of which of the Vs? **1 / 1 point**

- (•) Valence
- ( ) Velocity
- ( ) Variety
- ( ) Volume

✓ **Correct**

12. Which of the Vs is most relevant to the kinds of graph analysis you are interested in? Tell us why in a sentence or 2. (Any response will be counted correct.) **1 / 1 point**

Variety.....because I enjoy learning new things from a variety of sources.

✓ **Correct**

Thanks for thinking about this! Research shows that effortfully reflecting on how something applies to your interests helps you in remembering and understanding new material better!

Thanks for making the effort!