✓ **Congratulations! You passed!**
TO PASS 66% or higher
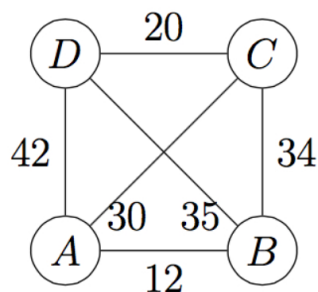
Keep Learning

GRADE
66.66%

Coping with NP-completeness

LATEST SUBMISSION GRADE

66.66%

1. What is the weight of a minimum traveling salesman cycle in the following graph?

0 / 1 point

> *No answer*

> ❗ **Incorrect**
> The answer you gave is not a number.

2. Recall that the dynamic programming algorithm for the traveling salesman problem uses $O(n^2 \cdot 2^n)$ time and $O(n \cdot 2^n)$ space (as usual, n is the number of vertices). You are going to run this algorithm on a graph with 50 vertices. Roughly how much space is needed for this assuming that each cell of the dynamic programming table occupies 8 bytes? (See How much is 1 megabyte, gigabyte, etc?)

1 / 1 point

○ Kilobyte

○ Megabyte

○ Gigabyte

○ Terabyte

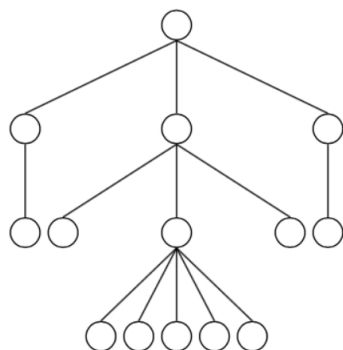○ Petabyte

◉ Exabyte

○ Zettabyte

○ Yottabyte

> ✓ **Correct**
> That's right! For this, we need about $8 \cdot 50 \cdot 2^{50} \approx 0.5 \cdot 2^{60}$ bytes.

3. What is the maximum size of an independent set in the following tree?

1 / 1 point

10

✓ **Correct**
That's right!