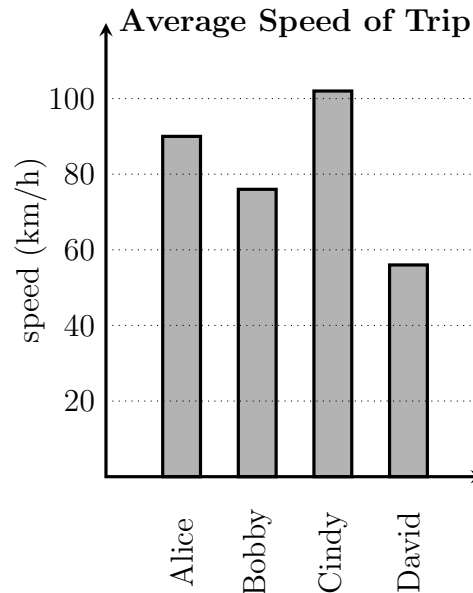


2020 Gray Jay Practice Problems

1. (Part A, 4 marks) Alice, Bobby, Cindy, and David all work at the same location. They will each drive from their work to the same conference. Below is a graph of their average speeds for the trip.



If they all left at the same time, who arrives at the conference first?

- (A) Alice (B) Bobby (C) Cindy (D) David
2. (Part B, 5 marks) Bob is a 6th grade student. His marks in his subjects at the end of the first and second semester of the academic year 2018/2019 were as follows:

Subject	Art	English	Math	Science
First semester	79	75
Second semester	74	70	78	78

His average mark at the end of the second semester was 5 marks less than his average mark at the end of the first semester, and, at the end of the first semester, his mark in mathematics was 6 marks higher than his mark in science.

What was the mark achieved by Bob in science at the end of the first semester?

- (A) 60 (B) 70 (C) 76 (D) 80 (E) 83
3. (Part C, 7 marks) Find the smallest n for which the numbers $1^2, 2^2, 3^2, 4^2, \dots, n^2$ can be split into two groups with the same sum.
- (A) 4 (B) 5 (C) 6 (D) 7 (E) 8 (F) 9