Announcements: PS 2 due Monday
Quiz Bonus: Prove \( 1^3 + 2^3 + 3^3 + \ldots + n^3 = \frac{n^2(n+1)^2}{4} \)
Continue with worksheet

**Statements** are math sentences

\[ \text{def: A statement is a declarative sentence that is true or false.} \]

**Q:** Which are statements? Discuss

1. The majority of Middlebury students have 1 sibling.
2. The product of 2 and 5. Not a sentence (no verb!)
3. This sentence is not true. Can’t be true or false
4. \( 2 + x = 10. \) Could be true or false, but now is neither!

**A)** All  | **B)** 1, 3  | **C)** 2, 4  | **D)** 1

**Predicate** - What is it? Becomes a statement if variable gets a value.

We’ve seen predicates in inductive proofs.