

1. Proving statements

Implications

This time we're exploring mathematical writing and getting introduced to proofs. This means that we are going to be working with **contrapositives** and **implications** some more in order to prove statements. To work with a statement, we turn it into an implication that we can work with mathematically.

Example: For every positive even integer n , $n + 1$ is odd.

Changing to an “if, then” statement, we can form:

If a positive integer n is even, then $n + 1$ is odd.

Question 1

Rewrite the following statements as “if, then” statements:

- a. When a positive integer n is odd, then $n + 1$ is even.

if n is odd, then $n + 1$ is even.

- b. All squares have four equal sides.

Hint

Think of representing the square as a variable, and the length of a side as a variable.

If s is a square, then the length of every side is l .

- c. asdf

Team: Please write down all people in your team.

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| 1. | 2. |
| 3. | 4. |
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Grading

Question	Weight	0-4	Adjusted score
1	5%		
2	6%		
3	12%		
4	15%		
5	25%		