

## Day 2

## Inner Animal

Turn to someone sitting near you who you haven't met before (or who you haven't talked to much before). Take about 3 minutes to discuss:

If you could wake up tomorrow and be any (non-human) animal, what animal would you choose to be and why?

# Arithmetic

1. “Suppose  $a$ ,  $b$  and  $c$  are positive integers. If  $a$  and  $b$  both divide  $c$ , then  $ab$  also divides  $c$ .”

This statement is...

(A) True.

(B) False.

2. Suppose  $n$  is an integer and  $n^2$  is divisible by 3. Then...

- (A)  $n$  must be divisible by 3.
- (B)  $n$  must *not* be divisible by 3.
- (C) Can't say for sure either way.

3. "There exists an integer  $n$  such that  $n^2 \bmod 4 = 3$ ."

This statement is...

(A) True.

(B) False.

4. "There exist no integers  $x$  and  $y$  such that  $21x + 30y = 1$ ."

This statement is...

(A) True.

(B) False.