1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. Let ABC be a right triangle with right angle at C. Point P lies on segment $\overline{AC}$ so that $AP = 9$ and $PC = 17$. The lengths BA, BP, BC form an arithmetic sequence. What is the length of BA? Express your answer as a common fraction.

10. How many four-term sequences of positive integers a, b, c, d are there satisfying

$$1 \le a, \quad 2a \le b, \quad 2b \le c, \quad 2c \le d, \quad d \le 16?$$

Extra: Pick a positive integer N in the set $\{1, 2, 3, 4\}$. If no other team picks N, every member of your team gets N tokens. Otherwise, every member of your team gets 0 tokens. (If you pick something outside the set or do not put an answer down, every member of your team gets 0 tokens.)