

14. Two children at a time can play pairball. For 90 minutes, with only two children playing at one time, five children take turns so that each one plays the same amount of time. The number of minutes each child plays is
- (A) 9 (B) 10 (C) 18 (D) 20 (E) 36

14. (E) Two children are playing at the same time, so there are $2 \times 90 = 180$ minutes of playing time. This must be divided equally 5 ways, so each child gets $180/5 = 36$ minutes.

OR

If pairball were played by one person at a time, each child would get $1/5$ of 90, or 18 minutes of playing time. Since two players are required, each child gets double this, or 36 minutes.

OR

There are 10 ways to pair the children, so each session lasts $90/10 = 9$ minutes. Each child is paired with four other children, so each child will play for $4 \times 9 = 36$ minutes.

Query. What are the 10 ways to pair the five children?

OR

At any given time, 2 children are playing and 3 are not, so $2/5$ of the children are playing at any given time. This implies that each child plays $2/5$ of the time. Thus, each child plays $\frac{2}{5} \times 90 = 36$ minutes.