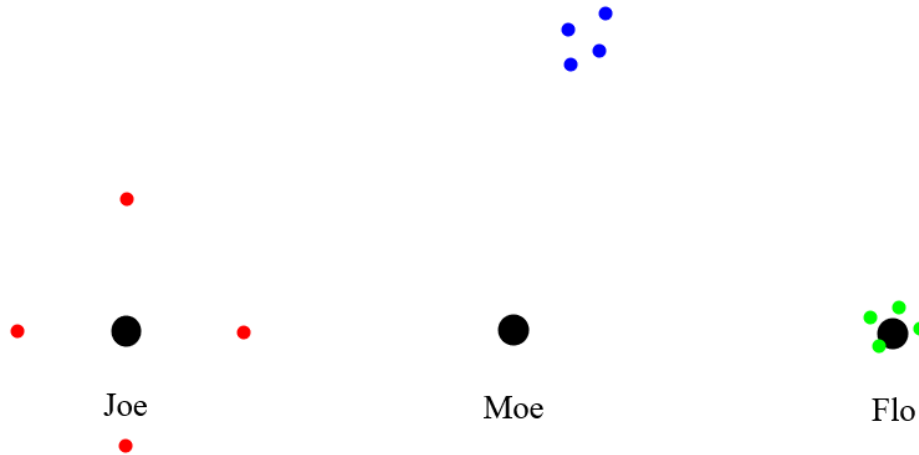


## Question Q1.11

Three archers each fire four arrows at a target. Joe's four arrows hit at points 10 cm above, 10 cm below, 10 cm to the left, and 10 cm to the right of the center of the target. All four of Moe's arrows hit within 1 cm of a point 20 cm from the center, and Flo's four arrows all hit within 1 cm of the center. The contest judge says that one of the archers is precise but not accurate, another archer is accurate but not precise, and the third archer is both accurate and precise. Which description goes with which archer? Explain your reasoning.

### Solution

Draw the situation.



Joe's shots are neither precise nor accurate because all are far apart from each other and from the center, Moe's shots are precise but not accurate because all are close to each other but far from the center, and Flo's shots are precise and accurate because all are close to each other and to the center.