The Pirates and the Diamond

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A band of 10 pirates is going to disband. They have divided up all of their gold, but there remains one giant diamond that cannot be divided. To decide who gets it, the captain puts all of the pirates (including himself) in a circle. Then he points at one person to begin. This person steps out of the circle, takes his gold and leaves. The person on his left stays in the circle, but the next person steps out. This continues with every second pirate leaving until there is only one left.

- Who should the captain point at if he wants to make sure he gets to keep the diamond for himself?
- What if there were 11 pirates? What if there were 12 pirates? What if there were 27 pirates and so on?

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