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# A Hundred Meters in 9.58 Seconds

Reading level 8 (4th grade) · 1051 words

A runner crouches behind a white line. His fingers touch the track. His feet press on two metal plates. Seven other runners hold the same pose. Then a gun fires. Less than ten seconds later, the race is over. This was Berlin, Germany, on August 16, 2009. The winner went 100 meters in 9.58 seconds. His name is Usain Bolt.

As of November 2026, World Athletics still lists 9.58 seconds as the world record for the 100 meters. This book follows that race. It starts with how a sprint begins. The rules for a start are strict, and every runner must follow them. Along the way, you will see how a race is started, timed and measured.

Runners in races of 400 meters or less use starting blocks. They start from a crouch. The starter gives two calls: "On your marks" and "Set." When all runners are steady, the gun fires. Each runner has a lane that is 1.22 meters wide, about four feet. In the 100 meters, the lanes run straight.

Bolt liked to joke before a race. When he was introduced for the final in Berlin, he aimed an invisible bow and arrow at the sky. But the joking stopped at the start. He told World Athletics that when the starter says "on your marks," he will "just refocus and then it is time to go."

The gun fires, and the clock starts. A runner needs a moment to hear the shot. Then he pushes off the blocks. That moment is reaction time. Sensors in the blocks measure it. Bolt's reaction in this final was 0.146 seconds. That is about one seventh of a second. Five of the other seven runners reacted faster than he did.

A reaction under 0.100 seconds counts as a false start. The rule assumes that no one can hear the gun and move that fast. A false start means leaving before the gun. Today, in the 100 meters, a runner who false starts is out of the race. That rule has applied since January 1, 2010.

Before 2010, a race could have one false start. No one went out for it. In the semifinal in Berlin, Bolt made that false start. He said he was joking with a teammate. In 2011, Bolt was disqualified from the 100-meter final in Daegu, South Korea, for a false start. The rule is the same for all runners.

World Athletics reported that Bolt was not the quickest out of the blocks in Berlin. About 30 meters in, he took control of the race. A sprint starts with short, quick steps, because the runner is still speeding up. Bolt's steps in the first 20 meters were about 1.8 meters long. That is close to six feet.

Each step after that was longer. In the last 20 meters, his steps were about 2.85 meters long,

more than nine feet. Over the whole race, he took about 41 steps. A sprint looks like one smooth glide. It is really 41 hard pushes against the ground.

One study used laser equipment to measure the race. It found that his top speed was 12.32 meters per second. That is about 27.6 miles per hour. He reached it near the 52-meter mark. The study said he kept that speed over five 10-meter sections, all the way to the finish.

Wind can help a runner. So every 100-meter race has a wind gauge. It stands by the track, 50 meters from the finish. It is 1.22 meters off the ground. It measures for 10 seconds after the gun. In Berlin, it read +0.9 meters per second. That is a gentle push from behind. A record cannot count if the wind averages more than 2 meters per second.

The race ends when a runner's torso reaches the finish line. The head, arms and legs do not count. A camera in line with the finish takes pictures. At big meets, the rules say it must take at least 1,000 pictures a second. Its time scale is marked in hundredths of a second.

Bolt's time was 9.58 seconds. Second place ran 9.71. Third place ran 9.84. A year earlier, on August 16, 2008, Bolt had run 9.69 at the Olympics in Beijing. So he cut 0.11 seconds from his own record. At Bolt's speed, a tenth of a second is about one meter.

World Athletics wrote that no one had ever cut the record by so much. Bolt said, "I didn't think I could run a tenth (of a second) faster than my World record, but for me, anything is possible." Four days later, in the same stadium, he ran the 200 meters in 19.19 seconds. That was a world record too.

A record is not official when the clock stops. World Athletics must approve it. On September 30, 2009, it announced that both of Bolt's Berlin times were approved. Its word for this is ratified. For a sprint, one thing it looks at is the wind reading.

The first official 100-meter record was 10.6 seconds. Donald Lippincott ran it on July 6, 1912. For decades after that, records were timed by hand, in tenths of a second. Since 1977, a record needs automatic timing. That lets judges measure hundredths. Bolt broke the record three times. His times were 9.72, then 9.69, then 9.58.

Bolt won eight Olympic gold medals. The Olympic committee lists eight. So does World Athletics. That is true as of November 2026. Bolt won the 100 meters and the 200 meters in 2008, 2012 and 2016. He also won the relay in 2012 and 2016. In a relay, a team of four runners each runs 100 meters.

His last World Championships were in London in August 2017. At the end, he took a slow lap of honor. The clock by the track flashed two numbers from Berlin: 9.58 and 19.19. He stopped for a moment at the 100-meter start and at the 200-meter start.

He told World Athletics, "I was saying goodbye to the fans and I was saying goodbye to my events also." As of November 2026, 9.58 is still first on the all-time list for the 100 meters. And 19.19 is still first for the 200. The clock in Berlin stopped in 2009. The numbers it showed are

still at the top.

## Questions

**1. How long was Bolt's reaction time in the Berlin final?**

A. 0.100 seconds
B. 0.146 seconds
C. 0.58 seconds

**2. Why does every 100-meter race have a wind gauge?**

A. Wind can help a runner
B. Wind makes the starting gun sound louder
C. Runners must always start by facing the wind

**3. In the sentence "Its word for this is ratified," what does ratified mean?**

A. Timed by hand
B. Called off
C. Officially approved

**4. What happens today to a runner who false starts?**

A. The runner is out of the race
B. The runner starts again
C. The runner gets a warning

**5. What did the clock beside the track in London flash?**

A. Bolt's age
B. The names of the runners
C. 9.58 and 19.19

**6. What does a camera taking 1,000 pictures a second let judges do?**

A. Measure the wind
B. Tell very close finishes apart
C. Start the race sooner

## Words to know

reaction: quick response
ratified: officially approved
disqualified: sent out
torso: upper body
gauge: measuring tool

# Answer key: A Hundred Meters in 9.58 Seconds

1. B. 0.146 seconds
2. A. Wind can help a runner
3. C. Officially approved
4. A. The runner is out of the race
5. C. 9.58 and 19.19
6. B. Tell very close finishes apart