

Mathematical Conversions Weight, Distance, and Time

Different countries use different systems of measurement. In the United States, we commonly use what is known as the English system, where length is measured in inches, feet, and miles. However, the metric system is commonly used in most other countries, including Canada. The metric system uses the base ten system to convert between measurements. Its measurements include the centimeter, meter, and kilometer. In mass (or weight, as it is sometimes called), the metric system uses the gram and kilogram. The English system uses the pound frequently. When people from differing countries come together (in cases such as the Olympics or the International Space Station), it is important that they are able to communicate about distances, masses (or weights) and other types of measurements, whether they commonly use the metric or the English system. The following examples are mostly from the Olympic games in Athens in 2004. The games in Athens were measured in the metric system.

1. Polites of Keramos won the stadion, the dialous, and the dolichos in 69 A.D. The stadion is considered to be 600 feet long. How long is that in meters?

2. The marathon was not an event in the original games, even though the event was based off the run made between two city-states to tell of a victory. The modern marathon is 26.2 miles. What is that distance in feet?

3. How long is 26.2 miles in meters?

4. How long is 26.2 miles in kilometers?

5. The winner of the men's marathon during the Olympic games in Athens, Greece is Stefan Baldini from Italy. His time is approximately 2 hours and 10 minutes. What is that time in minutes?

6. The Clean and Jerk champion during the 2004 games in Athens is Reza Zadeh from Iran. He lifted 263.5 kilograms. How many pounds did he lift?

7. The winning shot put throw was 66.96 feet. Irina Korzhanenko from Russia putted the shot put during the 2004 games in Athens how many meters?

8. The cyclists bike 73.81 miles during the road race. How many meters did gold medalist Sara Carrigan from Australia bike during the 2004 games to win?

9. The triathlon involves running 10 kilometers, swimming 1500 meters, and biking 40 kilometers. The winner in Athens is Austrian Kate Allen. Her time is 2 hours, 4 minutes and 50 seconds. How many seconds is that?

10. How many kilometers (combined) did Kate run, swim, and bike?

11. How many miles (combined) did Kate run, swim, and bike?

12. How many yards is the 1000-meter swim?

13. The diving tower height is 8 meters. How many feet is that?

14. The winning hammer throw in 2004 is by Olga Kuzenkova of Russia. She threw the hammer 246.13 feet. How many meters is that throw?

15. Dwight Phillips of the United States of America won the long jump in Athens with a jump of 8.59 meters. How many feet is that jump?

16. The flatwater kayaking course is 500 meters long. How many feet is the course in which the competitors must kayak?

17. The winning female kayaker in the 2004 games is from Hungary. Natasa Janics won in 1:47 minutes. How many seconds is that?

18. The winning javelin throw for the Athens games was 278.31 feet by Andreas Thorkildsen of Norway. How many meters was that throw?

19. The pole vault is an event wherein competitors use a large, flexible pole to jump up over a bar. The person who jumps the highest without knocking the bar off is the winner. The winning jump at the Athens games was by Yelena Isibayeva of Russia. She jumped 4.91 meters high. How high was her jump in feet?

20. The discus was won by Natalia Sadova of Russia during the 2004 Olympics. She threw the discus 67.02 meters. How far is that in feet?

Question: Why is it important to understand the metric system? Pretty much everything in the U.S. is done in the English system, so is it really important to even learn about it? Think about this idea, and be prepared to convince your teammates that it is imperative to learn the metric system. Hint: base 10 conversions are easier to learn than switching from 12 inches in a foot, 16 ounces in a pound, and so on.