
Description: Short quantitative problem for which students estimate the height and mass of an average adult in SI units.

[Constants](#) | [Periodic Table](#)

Familiarity with SI units will aid your study of physics and all other sciences.

Part A

What is the approximate height of the average adult in centimeters?

▶ [View Available Hint\(s\)](#) (1)

ANSWER:

- 100 cm
- 200 cm
- 300 cm

If you're not familiar with metric units of length, you can use your body to develop intuition for them. The average height of an adult is 5 feet 6.4 inches. The distance from elbow to fingertips on the average adult is about 50 cm. Ten mm (1 cm) is about the width of this adult's little finger and 10 cm is about the width of the average hand.

Part B

Approximately what is the mass of the average adult in kilograms?

▶ [View Available Hint\(s\)](#) (1)

ANSWER:

- 80 kg
 - 500 kg
 - 1200 kg
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Something that weighs 1 pound has a mass of about $(1/2)$ kg. This is a useful conversion to keep in mind!