La Scuola d'Italia / Huson / IB Math: Sequences 14 October 2025

First & last name: Grade:

1.8 Homework: Precision, Scientific notation, Significant figures

In IB we answer exactly or rounded to three significant figures. Copy the calculator display followed by three dots, then round:

$$\pi = 3.1415926... \approx 3.14$$

- 1. Round each value to three sig figs
 - (a) 2,746,984 (population of Rome)

(c) 8,804,190 (population of New York City)

(b) $\sqrt{2}$

- (d) e
- 2. Write down the number of significant digits in each value.
 - (a) 8

(c) 60

(e) 105.5

(b) 27

(d) 120

- (f) 1.7320
- 3. Calculate and write as scientific notation, rounding to three sig figs.
 - (a) $22.5 \times 14^2 665$

(b) The mean distance of the earth to the moon: 384,400 kilometers.

4. The Earth's mass is 5.972×10^{24} kg and the moon's mass is 7.348×10^{22} kg. What is the ratio of the Earth's mass to the moon's mass? Round to three significant figures.