La Scoula d'Italia / Huson / IB Math: Sequences   First & last name:

14 October 2025   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:

$$\pi = 3.1415926\ldots \approx 3.14$$

1. Round each value to three sig figs

    (a) 2,746,984

    (population of Rome)

    (b) $\sqrt{2}$

    (c) 8,804,190

    (population of New York City)

    (d) e

2. Write down the number of significant digits in each value.

    (a) 8

    (b) 27

    (c) 60

    (d) 120

    (e) 105.5

    (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.