

Problem 1-6

Round off the following numbers to three significant figures: (a) 58 342 m, (b) 68.534 s, (c) 2553 N, and (d) 7555 kg.

Solution

Use scientific notation to specify the number of significant digits.

Part (a)

$$58\,342\text{ m} \approx 5.83 \times 10^4\text{ m} = 5.83 \times 10^1\text{ km} = 58.3\text{ km}$$

Part (b)

$$68.534\text{ s} \approx 6.85 \times 10^1\text{ s} = 68.5\text{ s}$$

Part (c)

$$2553\text{ N} \approx 2.55 \times 10^3\text{ N} = 2.55\text{ kg}$$

Part (d)

$$7555\text{ kg} \approx 7.56 \times 10^3\text{ kg} = 7.56\text{ Mg}$$

This last answer is in disagreement with the one at the back of the book.