

Problem 43

Which numbers are exact (and therefore have an unlimited number of significant figures)?

- a. $\pi = 3.14$
- b. 12 inches = 1 foot
- c. EPA gas mileage rating of 26 miles per gallon
- d. 1 gross = 144

Solution

Part (a)

3.14 is used to approximate π , so this number is not exact.

Part (b)

This is a conversion factor, so this number is exact.

Part (c)

This EPA gas mileage rating is a measurement with 2 significant figures, so it's not exact.

Part (d)

This is a conversion factor, so this number is exact.