

3.5 Order, Exponents, and the Order of Operations

3.5 Exercise Set, page 220: 1, 3, 7, 15, 19, 25, 49, 51, 53

3.6 Fractions and Problem Solving

3.6 Exercise Set, page 227: 1, 5, 11, 13, 21, 33

Chapter 4 - Decimals

4.1 Decimals

4.1 Exercise Set, page 253: 1, 7, 11, 19, 23, 25

Exam 2 Wednesday, 03/11/26

3.1 - 3.6, 4.1

3.6: 33

33. The Apple Watch Series Two measures approximately

$1\frac{2}{3}$ inches by $1\frac{2}{5}$ inches by $\frac{9}{20}$ inches. Find the volume of the watch. (Source: Apple, Inc.)

$$\begin{aligned}
 \text{Let } V &= \text{volume of watch} \\
 &= (\text{length})(\text{width})(\text{thickness}) \\
 &= \left(1\frac{2}{3} \text{ in}\right)\left(1\frac{2}{5} \text{ in}\right)\left(\frac{9}{20} \text{ in}\right) \\
 &= \left(\frac{\cancel{5}}{\cancel{3}}\right)\left(\frac{\cancel{7}}{\cancel{5}}\right)\left(\frac{\cancel{9}}{20}\right) \text{ in}^3 \\
 &= \left(\frac{21}{20} \text{ in}^3\right)
 \end{aligned}$$

$$1\frac{1}{20}$$

$$\sqrt{20}$$

$$\frac{21}{20} = \frac{20}{20} + \frac{1}{20}$$

$$= \left(1 \frac{1}{20}\right) \text{ in}^3$$

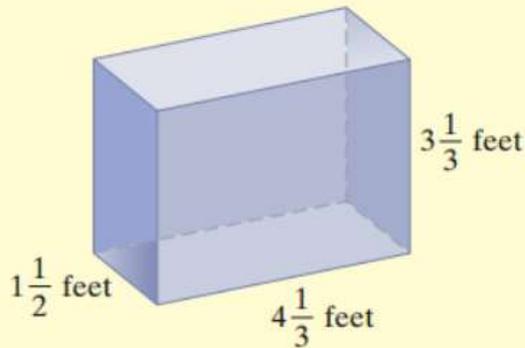
$$20 \overline{) 21} \frac{1}{20}$$

$$\underline{20}$$

$$1$$

Practice 1

Find the volume of a box that measures $4\frac{1}{3}$ feet by $1\frac{1}{2}$ feet by $3\frac{1}{3}$ feet.



Answer

1. $21\frac{2}{3}$ cu ft

$$\text{volume} = \left(1\frac{1}{2}\right) \left(4\frac{1}{3}\right) \left(3\frac{1}{3}\right) \text{ ft}^3$$

$$= \left(\frac{\cancel{3}}{2}\right) \left(\frac{13}{\cancel{3}}\right) \left(\frac{\cancel{5}}{3}\right) \text{ ft}^3$$

$$(12)(5) \quad 2.1^3$$

$$= \frac{(13)(5)}{3} \text{ ft}^3$$

$$= \frac{65}{3} \text{ ft}^3$$

$$= 21 \frac{2}{3} \text{ ft}^3$$

$$\sqrt[3]{65} = 21 \frac{2}{3}$$

4.1

Memorize

Millions	Hundred-thousands	Ten-thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths	Ten-thousandths	Hundred-thousandths	Millionths
1,000,000	100,000	10,000	1,000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1,000}$	$\frac{1}{10,000}$	$\frac{1}{100,000}$	$\frac{1}{1,000,000}$
						1	7	7	5	8		

$$\begin{array}{r}
 1 \times 10 \\
 + 7 \times 1 \\
 + 7 \times \frac{1}{10} \\
 + 5 \times \frac{1}{100} \\
 + 8 \times \frac{1}{1,000}
 \end{array}$$

Practice 10–12

Write each decimal as a fraction or mixed number. Write your answer in simplest form.

10. $0.12 = \frac{12}{100} = \frac{6}{50} = \frac{3}{25}$

11. $57.8 = 57 \frac{8}{10} = 57 \frac{4}{5}$

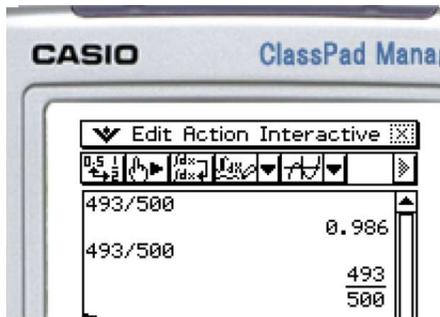
12. 209.986

$= 209 \frac{986}{1000}$

$= 209 \frac{493}{500}$

$$\begin{array}{r} 246 \\ 4 \overline{)986} \\ \underline{8} \\ 18 \\ \underline{16} \\ 26 \\ \underline{24} \\ 2 \end{array}$$

$$\begin{array}{r} 493 \\ 2 \overline{)986} \\ \underline{8} \\ 18 \\ \underline{18} \\ 0 \end{array}$$



Write each decimal number in words. $\$$

167.009

One hundred sixty-seven and nine thousandths