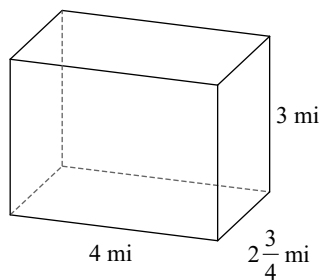


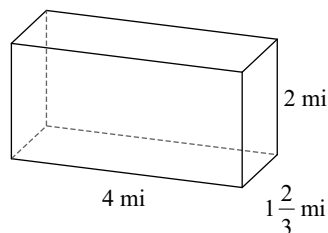
Right Rectangular Prisms with Fraction Side Lengths Date _____ Period _____

Find the volume of each right rectangular prism.

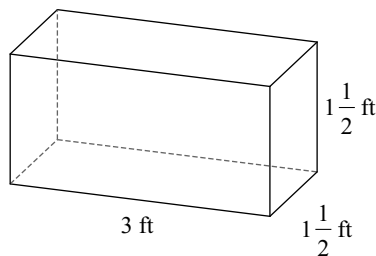
1)



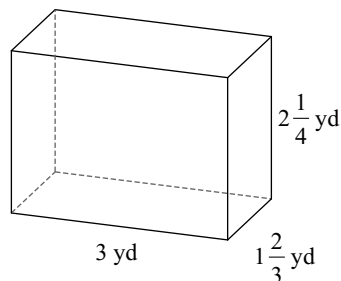
2)



3)



4)

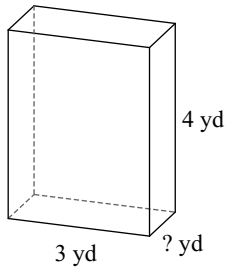
**Solve each problem.**

- 5) A right rectangular prism has a length of $2\frac{1}{2}\text{ mi}$, a width of $1\frac{1}{2}\text{ mi}$, and a height of 3 mi . What is the volume?

- 6) A right rectangular prism has a length of 3 yd , a width of $1\frac{1}{4}\text{ yd}$, and a height of $2\frac{1}{2}\text{ yd}$. What is the volume?

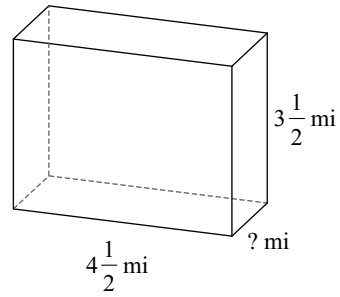
Find the missing measure for each right rectangular prism.

7)



$$\text{Volume} = 18 \text{ yd}^3$$

8)



$$\text{Volume} = 31\frac{1}{2} \text{ mi}^3$$

Solve each problem.

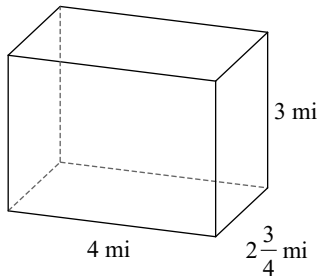
- 9) A right rectangular prism has a length of 2 mi, a width of $1\frac{1}{3}$ mi, and a volume of $9\frac{1}{3}$ mi³. What is the height?

- 10) A right rectangular prism has a width of $1\frac{2}{3}$ ft, a height of 4 ft, and a volume of $18\frac{1}{3}$ ft³. What is the length?

Right Rectangular Prisms with Fraction Side Lengths Date _____ Period _____

Find the volume of each right rectangular prism.

1)

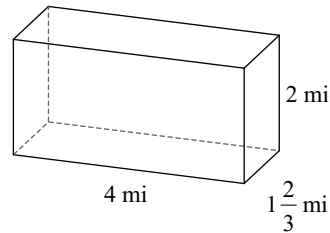


$$V = l \times w \times h$$

$$V = 4 \times \frac{11}{4} \times 3$$

$$33 \text{ mi}^3$$

2)

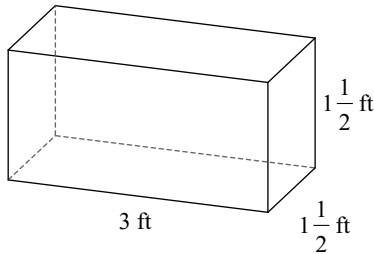


$$V = l \times w \times h$$

$$V = 4 \times \frac{5}{3} \times 2$$

$$13\frac{1}{3} \text{ mi}^3$$

3)

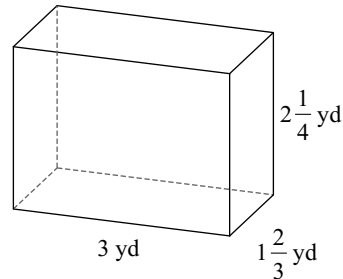


$$V = l \times w \times h$$

$$V = 3 \times \frac{3}{2} \times \frac{3}{2}$$

$$6\frac{3}{4} \text{ ft}^3$$

4)



$$V = l \times w \times h$$

$$V = 3 \times \frac{5}{3} \times \frac{9}{4}$$

$$11\frac{1}{4} \text{ yd}^3$$

Solve each problem.

- 5) A right rectangular prism has a length of $2\frac{1}{2}$ mi, a width of $1\frac{1}{2}$ mi, and a height of 3 mi. What is the volume?

$$V = l \times w \times h$$

$$V = \frac{5}{2} \times \frac{3}{2} \times 3$$

$$11\frac{1}{4} \text{ mi}^3$$

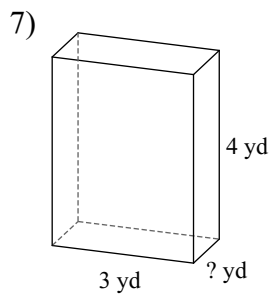
- 6) A right rectangular prism has a length of 3 yd, a width of $1\frac{1}{4}$ yd, and a height of $2\frac{1}{2}$ yd. What is the volume?

$$V = l \times w \times h$$

$$V = 3 \times \frac{5}{4} \times \frac{5}{2}$$

$$9\frac{3}{8} \text{ yd}^3$$

Find the missing measure for each right rectangular prism.



$$\text{Volume} = 18 \text{ yd}^3$$

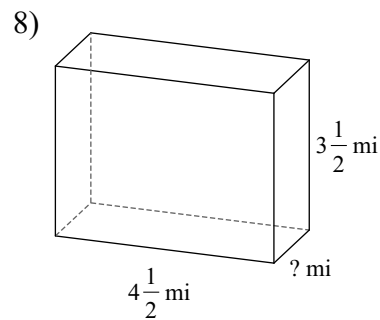
$$V = l \times w \times h$$

$$18 = 3 \times w \times 4$$

$$w = 18 \div 12$$

$$w = 18 \times \frac{1}{12}$$

$$1\frac{1}{2} \text{ yd}$$



$$\text{Volume} = 31\frac{1}{2} \text{ mi}^3$$

$$V = l \times w \times h$$

$$\frac{63}{2} = \frac{9}{2} \times w \times \frac{7}{2}$$

$$w = \frac{63}{2} \div \frac{63}{4}$$

$$w = \frac{63}{2} \times \frac{4}{63}$$

$$2 \text{ mi}$$

Solve each problem.

- 9) A right rectangular prism has a length of 2 mi, a width of $1\frac{1}{3}$ mi, and a volume of $9\frac{1}{3}$ mi³. What is the height?

$$V = l \times w \times h$$

$$\frac{28}{3} = 2 \times \frac{4}{3} \times h$$

$$h = \frac{28}{3} \div \frac{8}{3}$$

$$h = \frac{28}{3} \times \frac{3}{8}$$

$$3\frac{1}{2} \text{ mi}$$

- 10) A right rectangular prism has a width of $1\frac{2}{3}$ ft, a height of 4 ft, and a volume of $18\frac{1}{3}$ ft³. What is the length?

$$V = l \times w \times h$$

$$\frac{55}{3} = l \times \frac{5}{3} \times 4$$

$$l = \frac{55}{3} \div \frac{20}{3}$$

$$l = \frac{55}{3} \times \frac{3}{20}$$

$$2\frac{3}{4} \text{ ft}$$