# Lesson 86 • Volume of Pyramids and Cones

***Power Up***

– ***Facts***

– ***Mental Math***

– ***Problem Solving***

***New Concepts***

– ***Examples***

– ***Practice Set***

***Written Practice***



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**Facts** Write each percent as a decimal and as a reduced fraction. Write repeating decimals with a bar over the repetend.

| Percent | Decimal | Fraction | Percent | Decimal | Fraction |
|---|---|---|---|---|---|
| 10% | 0.1 | $\frac{1}{10}$ | 25% | 0.25 | $\frac{1}{4}$ |
| 90% | 0.9 | $\frac{9}{10}$ | 20% | 0.2 | $\frac{1}{5}$ |
| 5% | 0.05 | $\frac{1}{20}$ | 4% | 0.04 | $\frac{1}{25}$ |
| 40% | 0.4 | $\frac{2}{5}$ | 75% | 0.75 | $\frac{3}{4}$ |
| $12\frac{1}{2}$% | 0.125 | $\frac{1}{8}$ | 1% | 0.01 | $\frac{1}{100}$ |
| 50% | 0.5 | $\frac{1}{2}$ | $33\frac{1}{3}$% | $0.\overline{3}$ | $\frac{1}{3}$ |



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## Written Practice

1. 2 lb 6 oz
2. 40%
3. a. 30°
   b. $\pi$ in. or about 3.14 in.
4. 48 in.$^3$
5. 19 cm$^2$
6. 15 ft
7. $4x - 11$
8. a. \$110
   b. \$99
9. 56%
10. 256 mi
11. 3, 8, 13, 18, . . .
12. $5\sqrt{3}$
13. −2
14. \$1.20
15. $y = 2x + 4$
16. Sample answer: The side lengths fit the Pythagorean Theorem. $1^2 + 4^2 = (\sqrt{17})^2$, $1 + 16 = 17$. So a right triangle with these dimensions is possible.



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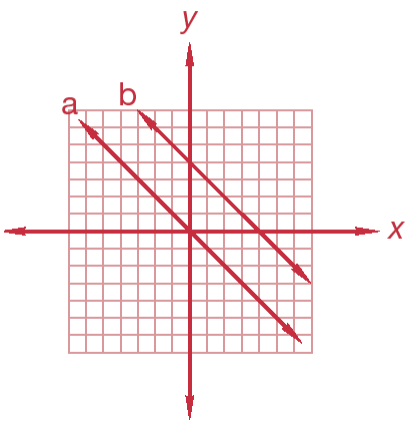
## Written Practice *continued*

**17.** a. $\frac{1}{7}$

b. $\frac{1}{10}$

**18.** $\frac{60 \text{ mi}}{1 \text{ hr}} \cdot \frac{5280 \text{ ft}}{1 \text{ mi}} \cdot \frac{1 \text{ hr}}{60 \text{ min}} = 5280 \text{ ft/min}$

**19.** **a.** and **b.**




c. They are parallel.

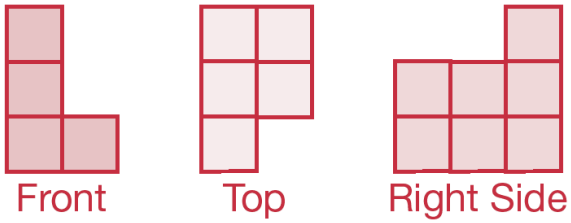
**20.** $x = 6$

**21.** $x = 2$

**22.** $x = -1$

**23.** $x = 8$

**24.** **a.**




**25.** $72 \text{ ft}^3$



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